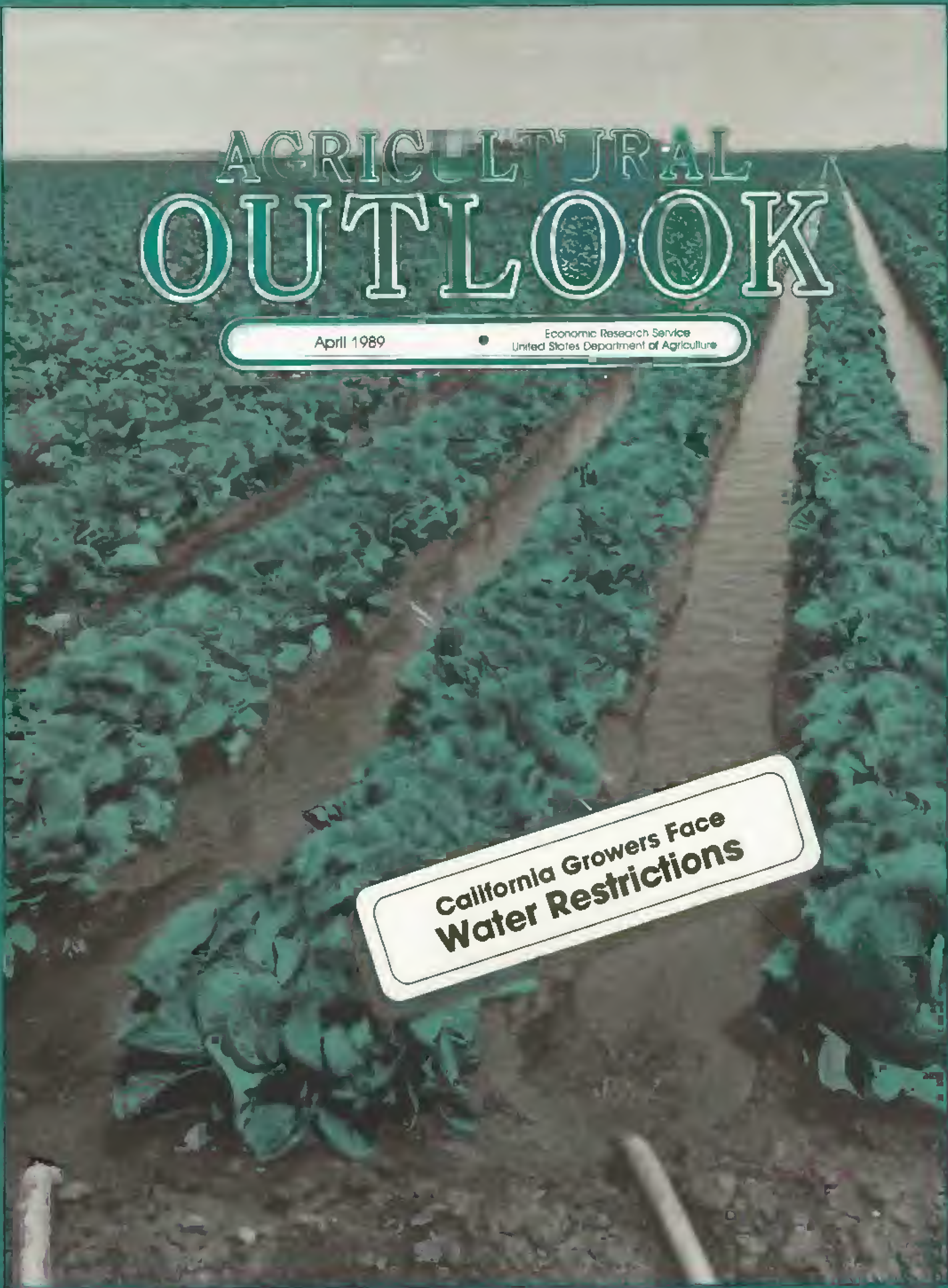
AGRICULTURAL OUTLOOK

April 1989 • Economic Research Service
United States Department of Agriculture



California Growers Face Water Restrictions

AGRICULTURAL OUTLOOK

April 1989/AO-151

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Special Article

Statistical Indicators

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Contents of the report have been approved by the World Agricultural Outlook Board, and the summary was released March 17, 1989. Materials may be reprinted without permission. Agricultural Outlook is published monthly except for January/February combined issue. Price and quantity forecasts for crops are based on the March 9 World Agricultural Supply and Demand Estimates.

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In Brief. . . News of Farm Income, Soviet Grain Developments, Europe 1992

Farmers' net cash income in 1989 is expected to be $48-$52 billion, unchanged from USDA's forecast last December, but 12-16 percent below last year's record $58 billion. The decline will come primarily from higher expenses and lower Government payments.

Net farm income, which adjusts for changes in stocks, is forecast at $44-$48 billion, 15 percent above last year's drought-reduced level. Adjusted for inflation, however, net farm income probably will be below the 1987 record. The stock adjustment excludes receipts from previous years and includes the value of current unsold stocks.

Federal disaster assistance may be less than anticipated last fall, because crop losses were smaller than expected. The drought assistance, combined with Federal crop insurance, permitted thousands of farmers to survive last year's bad weather.

Smaller U.S. crops and higher prices characterize the 1988/89 outlook for grains and oilseeds, while a large crop and rising U.S. stocks mark this year's cotton situation. USDA will release its first winter wheat forecast for the 1989/90 season on May 11. Although uncertainty remains about 1988/89 Southern Hemisphere crops, Argentina's drought-reduced soybean crop likely will be offset by a larger Brazilian harvest.

On March 14, the U.S. Food and Drug Administration issued an alert about possible cyanide poisoning of Chilean grapes. The FDA Commissioner recommended that all fresh fruit imported from Chile be pulled from the food distribution system. The ban on grapes and berries was lifted by President Bush on March 17.

Because Chile is the main source of soft-skinned fruits during the winter and early spring, the temporary ban increased the prices of competing fruits and soft-skinned fruits from non-Chilean sources.

Grape and apple exports have helped fuel Chile's recent growth. Grapes alone accounted for 59 percent of Chile's agricultural exports to the U.S.

Higher prices are boosting the value of U.S. field- and high-value crop exports this year. While export volumes of grains, oilseeds, and cotton are expected to be flat, value will be up about 10 percent. Rising exports of horticultural products and tobacco, largely due to a declining dollar, are helping sustain prices in the face of rising production.

Turkey production is expected to rise 4 percent this year, following 2 years of lackluster returns. Broiler production may rise 6 percent. Beef consumption will be the lowest since 1962, but increasing poultry consumption will more than make up the difference, so total meat consumption will likely be above last year.

One of the **driest October-December** periods in 40 years hit key wheat-producing areas in the Plains States. The early winter dryness, which tends to depress yields, affected an area stretching from Nebraska southward through Kansas and into the Oklahoma and Texas panhandles. The area traditionally produces about 60 percent of the winter wheat crop, which in turn is usually about 75 percent of the total U.S. wheat crop.

Above-normal temperatures, followed by sub-freezing temperatures, freezing rain, and wind damage in the heart of the winter wheat area have been additional negative factors. However, winter wheat prospects could improve substantially, depending on rainfall this spring.

USDA estimates that **Soviet grain stocks** will fall during 1988/89 for the first time in 7 years. The estimated drop is due to a smaller crop and increased livestock feeding. Reserves are estimated to fall 4 million tons and imports to rise about 5 million. Poor harvesting, storage, processing, and transportation practices have added to Soviet problems. The Soviets are increasing efforts to cut these losses.

California vegetable growers are heading into their third drier-than-normal year, and a water shortage has forced officials to cut water allocations to California growers by as much as 50 percent. But because vegetables are high-value crops, growers will keep water flowing to them at the expense of other crops. Independent of water issues, growers may have shifted acreage out of other crops and into vegetable production. So despite the water shortage, California vegetable production is expected to increase 2-3 percent this year. Recent rainfall in some areas will help some California growers.

Under a plan called **Europe 1992**, the European Community (EC) is integrating its internal market. The thrust of Europe 1992 is to make the EC more competitive in world markets and more powerful in world affairs. The integration will lead to major changes in EC agriculture.

Agricultural Economy

Credit Backstops Farmers

After the drought hit last summer, many farmers needed more credit to cover reduced cash flows. Some needed credit to help cover drought-related higher production costs, such as payments for more irrigation. Others needed credit to help offset lower crop receipts. Many needed credit to gear up for expanded plantings in anticipation of higher crop prices in 1989.

Commercial banks and Farm Credit System (FCS) institutions in the drought-stricken areas stepped in to meet farmers' emergency credit needs.

Bankers are often accused of deserting farmers when times get tough, but this apparently did not happen during and after the drought. When combined with rebounding farmland values, the recent rescue of the FCS, and other changes in the farm credit delivery system, the good news about credit availability raises questions about how much credit farmers should use.

Some analysts are concerned that the recent rise in land values may not be supported by future returns. The 1970's boom was followed by the land-value collapse of the 1980's. During the early and mid-1980's, all of the inflation-adjusted gains to farmers from the 1970's land-price runup were lost.

Lenders Help Farmers In Drought Areas

Agricultural banks in drought-stricken areas entered 1988 in a stronger financial position, and made relatively more loans through the drought's midsummer peak, than agricultural banks elsewhere. Between yearend 1987 and mid-1988, the growth in loan volume at agricultural banks in drought-stressed counties ranged from 4.7 to 7.0 percent. Yet loan volume grew only 2.9 percent at agricultural banks elsewhere.

Agricultural banks are commercial banks that specialize in farm finance. Over half the nation's roughly 4,500 agricultural banks are headquartered in those counties hit hardest by last year's drought.

The FCS picture is less clear. The bulk of drought-related farm damage was in the St. Paul, Louisville, and Omaha Districts. "Performing" loans--those without late payments or collateral problems--at FCS institutions in the three districts grew in volume by 2.6 percent to 16 percent during first-half 1988. Performing loans grew 4.7 percent Systemwide.

Nonetheless, since the federally supported rescue of the System in late 1987, officers at many FCS lending institutions have vowed to regain the market share that was lost in recent years.

In general, lenders are willing and able to make new loans to farmers when they believe agricultural prospects look good. Lower wheat and oilseed stocks, and the consequent runup in commodity prices, have given farmers and their lenders reason for optimism.

The rebound in farm real estate values shows farmer and lender optimism in a tangible way. In a recent survey, agricultural bankers in the Chicago Federal Reserve District reported that farmland values rose an average 11.5 percent in 1988, up about 20 percent from the 1986 trough. A survey of rural bankers in the Minneapolis Federal Reserve District late last December showed cropland values rising 5.7 percent from a year earlier. Other less reliable sources indicate that land values have increased more than suggested by these surveys.

Farms in both the Chicago and Minneapolis Federal Reserve Districts were hit hard by the drought. Apparently, the drought did not markedly weaken the already rebounding land market. In part, this is because land values reflect expectations about the land's future earning power, not just current earning power.

Changes in Credit Delivery Mean Cheaper, Easier Farm Credit

The new secondary market for agricultural land loans, Farmer Mac, promises to bring cheaper, and perhaps easier, credit to farmers seeking to start new farms or acquire bigger farms. The intent of Farmer Mac is to secure a larger, more reliable source of farm mortgage credit.

Farmer Mac will allow lenders to originate and service fixed- and flexible-rate, long-term farm mortgages without keeping the loans on their books. By selling mortgages in the secondary market, lenders will be able to pass on much of the associated default and interest-rate risks while keeping the origination and servicing fees.

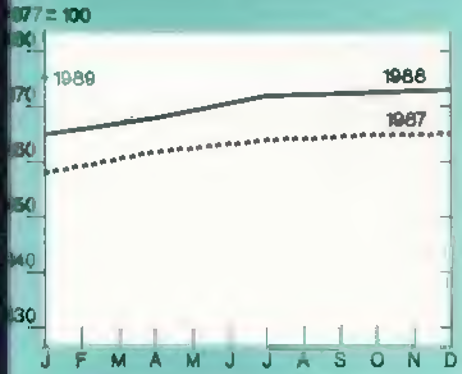
While lenders selling loans will have to keep or contribute to a small reserve against future losses, Farmer Mac loan sales are ultimately guaranteed by the Federal Government. This will allow lenders to increase their leverage. Less lender equity will be needed to back the loans, enabling lenders to write more farm mortgages. Most analysts agree that Farmer Mac would not be viable without the Federal guarantee.

Farmer Mac can benefit farmers, but the loan standards it sets will determine its effectiveness. If the standards are too stringent, only the lowest-risk loans will be sold and the new market will not have much effect. If the standards are too loose, lenders will be able to pass high-risk farm loans on to generally nonfarm investors, with Federal backing. This would encourage farmers to take on more debt, leaving them more vulnerable to the vicissitudes of weather, the general economy, and international markets.

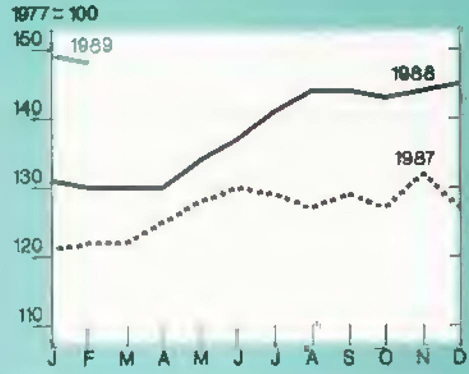
The FCS's recent federally supported rescue also has contributed to cheaper farm credit. Many analysts believe that without the rescue, several large FCS institutions would have failed. The

Prime Indicators of the U.S. Agricultural Economy

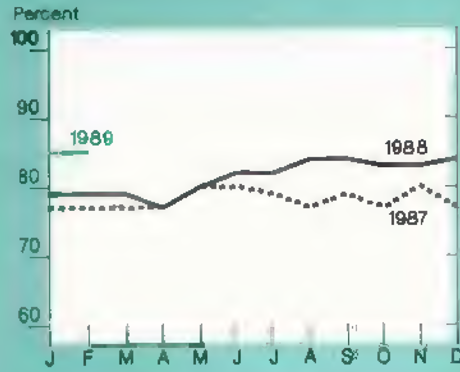
ndex of prices paid by farmers[1]



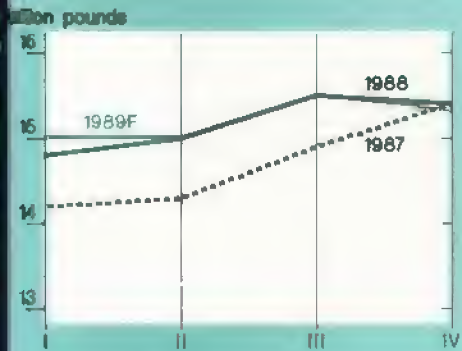
Index of prices received by farmers[2]



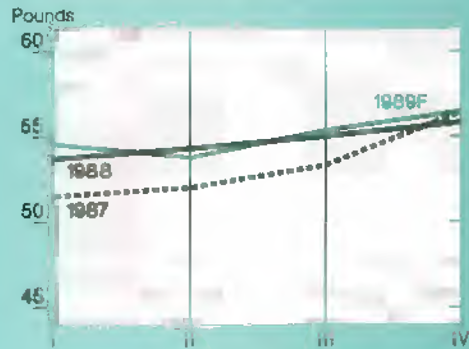
Ratio of prices received to prices paid



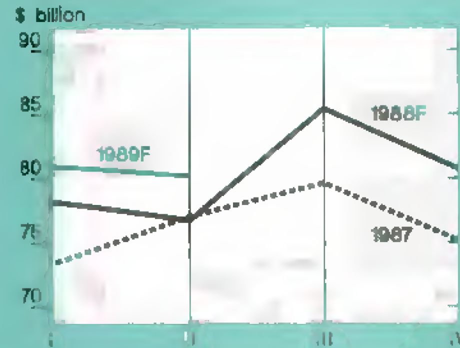
Red meat & poultry[3] production



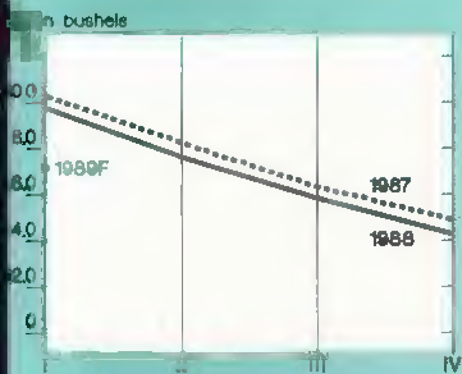
Red meat & poultry consumption, per capita[3,4]



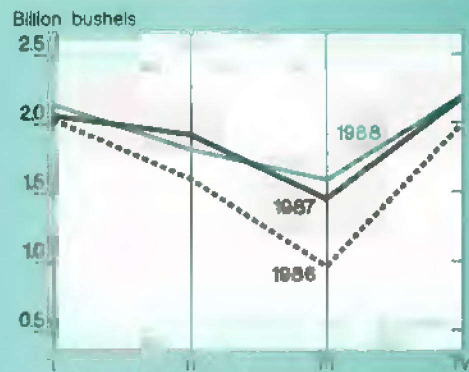
Cash receipts from livestock & products[5]



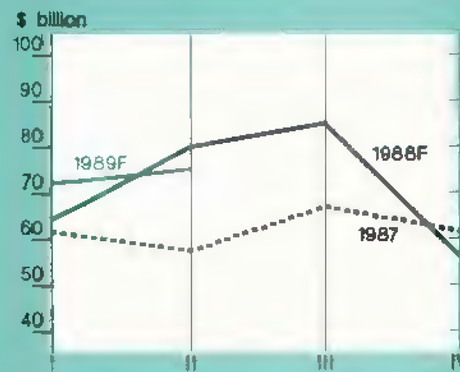
Corn beginning stocks[6]



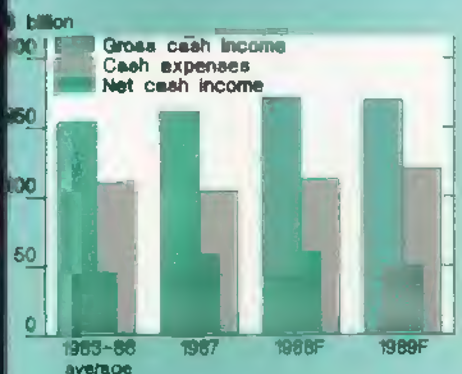
Corn disappearance[6]



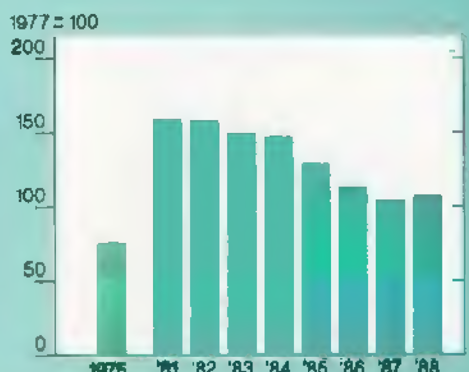
Cash receipts from crops[5]



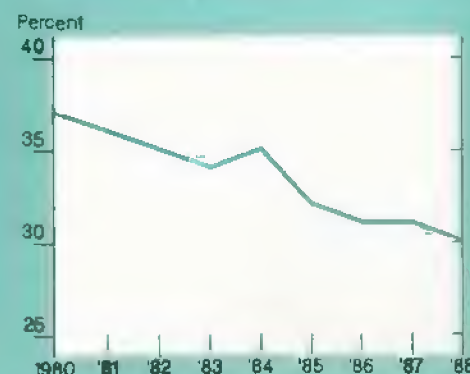
Farm net cash income



Farm real estate values



Farm value/retail food costs



For commodities and services, interest, taxes, and wages. Beginning in 1986, data are only available quarterly. [2]For all farm products.
Calendar quarters. Future quarters are forecasts for livestock, corn, and cash receipts. [4]Retail weight. [5]Seasonally adjusted annual rate.
=Dec.-Feb.; II=Mar.-May; III=June-Aug.; IV=Sept.-Nov. F=forecast.

failures would have reduced competition among lenders, increased the costs to borrowers, and reduced the availability of farm credit. But the rescue is not a gift to the FCS, which must pay back the bulk of the aid over the next 15 years.

FCS institutions that benefit from the aid are under pressure from the Farm Credit Administration, the System's regulator, to boost income and capital, partly to ensure the aid is repaid. To protect the FCS, the Farm Credit Administration announced tough new capital standards that would prevent FCS institutions from expanding without more of a cushion against future losses. But the Farm Credit Administration promised to forebear on the new standards if an FCS bank is making a reasonable attempt to rebuild capital.

Despite the record number of agricultural bank failures this decade, surviving agricultural banks are liquid and appear willing to take on more agricultural loans. The new secondary market will give banks another tool to expand farm lending, and a renewed FCS will force them to keep lending terms more favorable to farmers.

Recovery Prospects Tempered

Farmers have reasons to be optimistic. The burdensome grain stocks are dropping and commodity prices are strong in the face of rising domestic and foreign demand. Rising land values and bankers' willingness to lend to farmers reflect this optimism.

But the current optimism is tempered by the knowledge that U.S. and foreign farmers still have the capacity to produce large crops and large volumes of livestock products that could exert downward pressure on agricultural prices and land values. *[Gregory Gajewski (202) 786-3313]*

Animal Products Overview

Broilers To Gain On Red Meats

Even though beef consumption this year will be the lowest since 1962, chicken and turkey consumption are up, and per capita U.S. red meat and poultry consumption combined probably will exceed the 1988 record. Broiler consumption will exceed that of pork, as happened in 1987, and be only a few pounds below beef.

Large poultry supplies will temper meat price increases; even so, livestock and meat prices in 1989 will be near or higher than 1988. Higher consumer disposable incomes, increased operating costs, and lower beef supplies likely will cause prices to edge higher at the farm and retail levels, especially for beef and turkey.

Egg prices will climb in 1989, accompanying a sharp drop in production. Annual consumption is expected to decline about 10 eggs per person.

Hog Prices Flat In First Quarter

Hog prices were relatively flat in first-quarter 1989, averaging about $41 per cwt at the seven major terminal markets. Prices improved seasonally from the fourth quarter but remained below a year earlier. Wholesale and retail pork prices also were lower than in 1988. The market is expected to strengthen this spring, with barrow and gilt prices approaching $50 per cwt by the end of the second quarter.

Increased supplies of fresh and frozen pork overshadowed the hog market during first-quarter 1989. Fresh pork production was boosted by three factors. First, the summer 1988 pig crop was 2 percent above a year earlier, resulting in a greater number of market-ready hogs.

Second, weather conditions were unusually mild through January. Hogs gained weight faster than usual, allowing producers to market them ahead of schedule.

Third, hog imports from Canada increased, possibly due to the reduced countervailing duty against live hog imports, which took effect in December.

Beginning stocks of frozen pork in 1989 were the largest since 1955. Since the drought began last summer, deferred futures prices have maintained substantial premiums over cash prices, encouraging the movement of pork into storage. While most of these stocks will not reach consumers until summer, they add significantly to current pork supplies and impose both a physical and psychological lid on prices.

Pork production is expected to drop to year-earlier levels in the second quarter, and hog prices are likely to strengthen. The hogs that will be marketed in the spring were farrowed last fall, and last fall's pig crop was cut significantly by the drought.

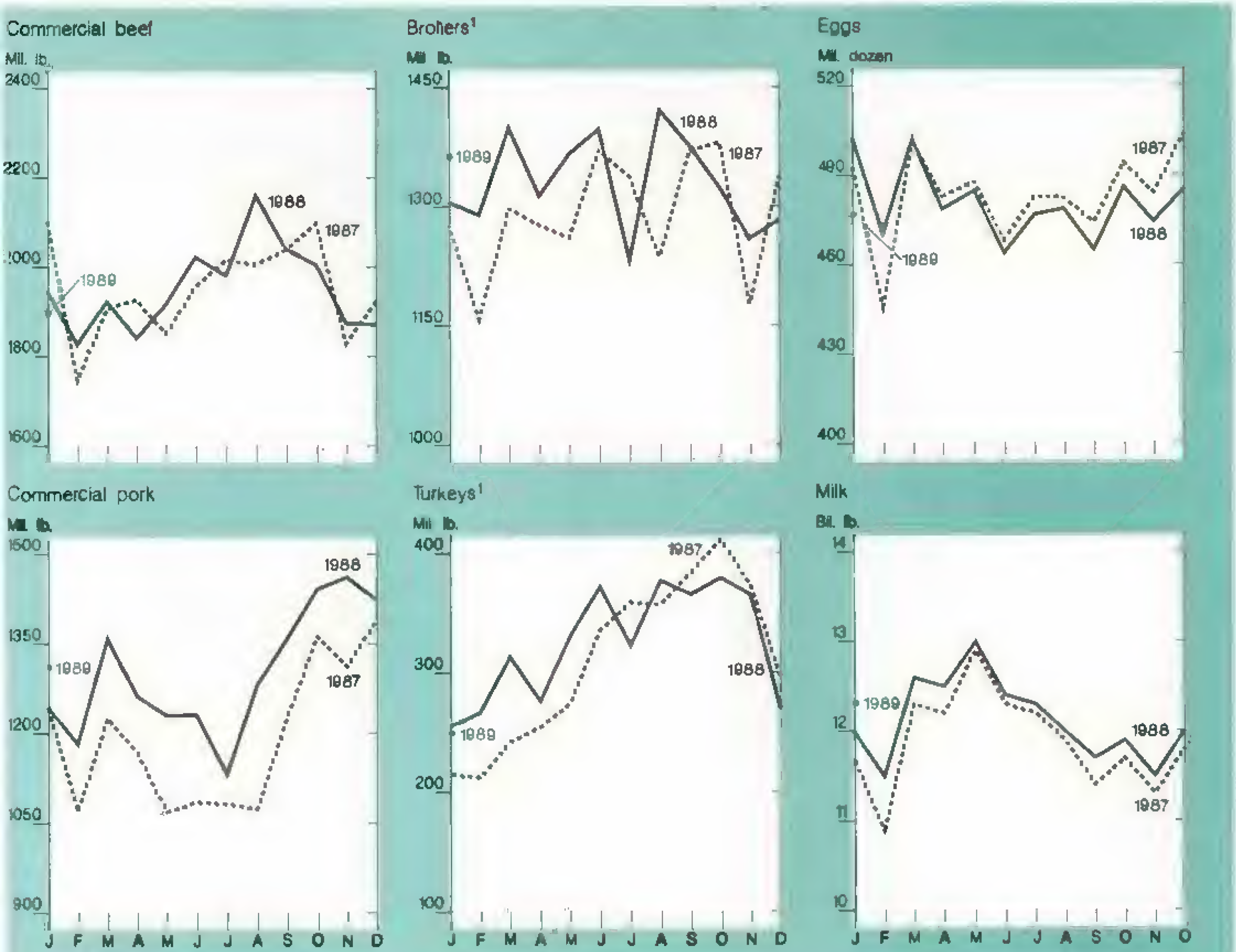
Pork prices also will draw strength from reduced beef supplies in the spring. Pork loins, spareribs, and Boston butts typically dominate pork trade at this time of year, and these cuts compete directly with beef during the cookout season. Led by a rise in wholesale pork, barrow and gilt prices are expected to average in the mid- to high $40's per cwt in the second quarter, with a possible seasonal peak near $50.

Fed Cattle Prices Up

Fed cattle prices rose about $3 per cwt to $75 during February, even though monthly beef production adjusted for slaughter days was about unchanged from a year ago. Part of the strength may stem from final purchases under the 1988/89 Japanese beef export quota, which ended March 31.

In addition, on February 8 the Japanese Livestock Industry Promotion Corporation tendered its first bids for the 1989 Japanese fiscal year beginning April 1. The 1989 quota is scheduled to rise 60,000 metric tons to 334,000 (736 million pounds).

Even though the U.S. is the world's largest beef producer and consumer, small changes in beef exports can lead to wide swings in prices. Last year, 3 percent of U.S. beef production was exported.



[1]Federally inspected production, ready-to-cook.

Prices strengthened in anticipation of reduced fed cattle marketings in March and April. The March 1 *Cattle on Feed* report for the seven States reporting monthly indicated that February marketings were only 2 percent below a year earlier, even though 1988 was a leap year. Net placements were record large and up 15 percent following near-record placements in January. Large numbers of cattle continue to be forced off wheat pasture and from other areas with poor forage supplies.

Cattle on feed on March 1 were up 1 percent from a year ago and 2 percent above the 1983-88 average for the date. Feedlots are current, and market weights have declined more than seasonally since January. Cattle prices likely will remain strong through mid-April to encourage feeders to market their cattle, even though a lower proportion is grading Choice. Cattle probably will be moving to slaughter faster than normal. Increased placements off declining wheat pasture began in December, and these cattle will begin to be marketed in late April.

Retail beef prices reached a record high of $2.64 a pound in January; the usual seasonal narrowing in the farm-to-retail spread has not occurred. Because beef is expensive relative to pork and chicken, further beef price increases could push consumers into buying even more pork and chicken. This switch from beef could make the market more susceptible to price swings if export demand softens, or if export buyers reduce purchases until late spring, when fed marketings are expected to rise and prices decline.

Broiler Production Up Nearly 6 Percent

Broiler production is forecast to increase nearly 6 percent in 1989 following good

net returns in 1988. Broiler prices probably will remain unchanged to slightly down as beef supplies decline and poultry production increases.

Broiler production during first-quarter 1989 may have increased between 2 and 3 percent. The November, December, and January broiler chick hatches were more than 4 percent above a year earlier, while weekly February chick placements rose more than 5 percent. Second-quarter production could rise 4 percent. The size of the hatching-egg flock was even with a year earlier on January 1.

The rate of increase in quarterly broiler production probably will grow during 1989. Net returns have been positive since the second quarter of 1988, and are expected to remain so throughout 1989 unless another drought pushes up feed costs. The biggest production increases probably will come during the second half, when feed costs are projected to fall.

The 12-city wholesale composite broiler price is forecast to average 53-59 cents per pound in 1989, compared with 56 cents in 1988. First-quarter prices, at 58-60 cents per pound, may remain near the previous quarter, but be above the year-earlier 45 cents. Second-quarter prices are expected to decline slightly to 55-59 cents, remaining near a year earlier.

Broiler exports during 1988 rose 2 percent from 1987 to a record 765 million pounds. Export value was $385 million, up 9 percent.

Japan took a record 33 percent of U.S. broiler exports, mainly because of strong domestic demand and the lower dollar/yen exchange rate. Mexico's imports also were up sharply, assisted by a CCC export credit guarantee and a liberalized import policy. Sales to Egypt and Iraq under the Export Enhancement Program (EEP) dropped as these countries restricted chicken meat imports. EEP exports for all of 1988 are estimated at about 36 million pounds, down about 80 percent from a year earlier.

Broiler exports are expected to be lower in 1989 because of relatively high U.S. prices and no substantial growth in any of the major markets. However, importer policies and export programs are likely to continue to have a large impact.

Broiler Productinn Highly Integrated

Today's broiler industry bears little resemblance to the industry of 30 years ago. In the past, many small operations raised broilers and sold them to wholesale packers for slaughter. From the packers, the whole fryers moved up the marketing channel through distributors and brokers to retail.

Today, slightly more than 100 integrated firms, located mostly in the South and mid-Atlantic States, produce and process whole broilers into many different forms for retail marketing. Other firms may purchase ready-to-cook broilers from integrators and further process or cut them up.

Retailers, who marketed nearly all broilers as whole fryers under generic labels 30 years ago, now market only about one-third as whole fryers. Today, most broiler meat is retailed either cut up or in some other processed form, with about half sold as a branded product.

Broiler integrators control production through most of its four stages: hatchery, growout, processing, and distribution. This contrasts with red meat production, where there is relatively little formal coordination from the farm to the slaughter and processing levels.

Hatcheries incubate broiler eggs, and the resulting chicks are grown out for slaughter. Most integrators have their own hatcheries. However, there is a small but significant number of independent broiler hatchery producers who provide supplemental chicks to broiler integrators.

Because of vertical integration, where a single company owns operations at all stages of production, several measures of hatchery capacity provide good estimates of egg-laying capacity and short-term production capacity. These measures include the number of broiler hatcheries, the hatching egg flock, and the hatchery supply flock. Over time the number of broiler hatcheries has decreased, while the size of individual plants has increased.

The number of hatcheries is estimated biannually, while the sizes of the hatching egg flock and the broiler hatchery supply flock are estimated monthly. Thus, the hatching egg flock and broiler hatchery supply flock provide better estimates of fluctuations in broiler egg-laying capacity.

The total hatching egg flock is only a rough indicator of the broiler hatching-egg flock, because it includes both table-egg type layers (10-15 percent) and broiler-egg type layers (85-90 percent). But it is the best indicator of broiler production 3 months out because of its large proportion of broiler hens.

The broiler hatchery supply flock is an estimate of the number of broiler hens in the hatching egg flock. But it is used primarily as an estimate of the hatching egg flock 7 months into the future. This flock measure is the sum of the monthly placements of broiler pullets in the hatchery supply flock 7 to 14 months earlier. A broiler pullet takes approximately

Turkey Production Up 4 Percent

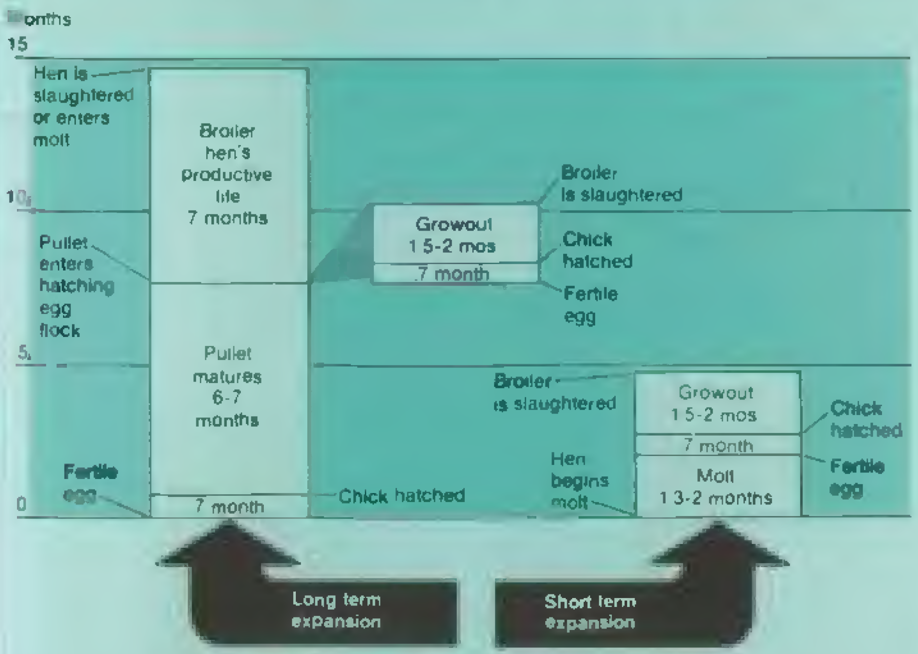
Turkey production is forecast to increase about 4 percent in 1989 following lackluster net returns in the previous 2 years. Wholesale prices are expected to rise as per capita supplies increase modestly and competing red meat supplies decline.

First-quarter federally inspected production is expected to increase 1-2 percent from the previous year. Second-quarter production is projected to rise 2 percent. Production increases are expected to accelerate during the second half of 1989.

Turkey stocks on January 1 were 250 million pounds, about 12 percent below a year earlier. Per capita consumption is expected to be around 16.9 pounds, up from 16.2 pounds in 1988. Wholesale hen turkey prices in the East during 1989 are forecast to average 64-70 cents per pound, above last year's 61 cents.

Because beginning stocks were lower and Easter is in the first quarter, first-quarter turkey prices likely will average

Broiler Expansion Can Take Less Than 5 Months



7 months to become a productive laying hen, and usually continues laying eggs for another 7 months.

After 14 months, a broiler hen's productive life is not necessarily over. If broiler production appears profitable, broiler egg production can be increased by force-molting the broiler hens. The hen can then be returned to production relatively quickly.

A molt is a period when hens lose their feathers, quit eating, and quit laying eggs. The molt is usually forced by adjusting the lighting and removing hens from feed. Generally, broiler hens are, at the most, molted only once, largely because fertility declines as the hens age.

The molt takes 6-8 weeks if forced, and up to 4 months if it occurs naturally. If profit prospects worsen, broiler egg production can be decreased by sending eggs to the table egg market or to egg product processors.

The size of the broiler hatchery supply flock is used primarily as an indicator of future broiler production. Future broiler production can be projected by estimating the month when a pullet chick placed today will enter the flock, and adding the previous 7 months' placements to produce an estimate of the future hatchery supply flock.

If a sustained downturn in broiler prices appears likely, or if a hen has completed her useful life, she is often slaughtered. Slaughtered broiler hatching-egg and table-egg type hens are either further processed or sold as stewing hens.

Once the decision is made to produce a chick, it takes 21 days to hatch the egg. At 1 day of age, the chick is placed with growers, who provide the labor, equipment, and facilities to grow the chick to maturity in 6-7 weeks.

The integrator provides the grower with chicks and feed, as well as field supervisors who provide technical assistance. Nearly all birds are raised under production contracts between the integrator and the grower.

When the broilers reach market weight, the integrators send people called "catchers" to take the birds from the growout facilities to processing plants where they are slaughtered. Most growout facilities are within 30 miles of the processing plant.

Processors then decide how to process the bird based on current orders for whole fryers, parts, and further-processed meat. Most of the larger integrators can sell the bird in any form.

Recently, integrators have specialized by defining a market niche with a branded product. Such niches include selling broilers in grocery stores and supermarkets nationally; producing value-added, ready-to-cook entrees; or producing for the restaurant and institutional trade. *[Mark Weimar (202) 786-1710]*

61-63 cents, substantially above the 49 cents of a year earlier. Prices are expected to decline in the second quarter, averaging 58-62 cents, but should remain well above the 51 cents of second-quarter 1988.

Turkey exports during 1988, at 51 million pounds, were 54 percent ahead of 1987 and the highest since 1982. During 1989, turkey exports are expected to drop because of higher U.S. prices. Uncertainties concerning import tariffs and other trade policies in some major markets, including West Germany, Egypt, and Mexico, also may contribute to the drop. However, Taiwan, after banning turkey-part imports during the latter part of 1988, reopened its market with quotas for 1989.

Egg Production Down Slightly

During 1988, total egg production (table and hatching) declined less than 1 percent. Per capita consumption for the year was 244 eggs, 5 fewer than a year earlier. For 1989, total egg production is expected to decline about 3 percent, with per capita consumption projected at 234 eggs. Poor returns are driving these trends.

Table egg production is expected to fall nearly 4 percent in 1989. This will boost prices during the year, particularly during the first quarter when the year-to-year production decline is the largest and consumers demand more eggs for Easter.

The table egg production estimate is based on the reduced size of the table egg-type laying flock, which began the

year 6 percent below a year earlier. As of February 1, the flock was about 5 percent below a year earlier. The table egg flock is expected to continue decreasing through the first half, following its normal seasonal pattern of bottoming out in June-July and peaking in November-December.

Wholesale prices for grade A large eggs in New York City averaged 62.1 cents per dozen in 1988. Prices became volatile over the past several months, particularly during mid-February to mid-March. Fourth-quarter prices averaged about 67 cents per dozen. For 1989, prices are expected to strengthen to an average of 74 cents. Prices during first-quarter 1989 probably averaged about 78-80 cents, while second-quarter prices are projected to fall to the 70-cent range. Prices are expected to move into the low-70's in the third quarter and the mid-70's in the fourth.

Estimated net returns to egg producers were a negative 5 cents per dozen during 1988, after weighting by production. The poor performance resulted from weak egg prices in the first half and a sharp rise in feed costs (which more than offset higher egg prices) during the second half.

For 1989, projections suggest net returns will be well above breakeven for the first quarter and near breakeven the second. Second-half net returns also are likely to be positive as reduced egg supplies continue to hold prices in the 70's. For the fourth quarter, sharply lower feed prices and fairly strong egg prices could push estimated net returns to about 10 cents per dozen, a figure in line with fourth-quarter 1985 and 1986 net returns.

Total egg exports during 1988 were 142 million dozen equivalent, up 27 percent from a year earlier and the highest since 1982. Export programs and competitive prices played an important role. Exports are expected to decline in 1989 due to higher U.S. egg prices, but export programs also will play a role.

Dairy Sales Mixed In 1988

Commercial use of dairy products varied in 1988. Sales were weak early in the year, but finished strong. Growth in sales of products made from cream was weaker than in recent years, but sales of products based on whole milk or skim milk accelerated.

Economic growth in 1988 helped expand dairy sales. Real Gross National Product grew 3.8 percent, up from 3.4 percent in 1987. The civilian unemployment rate fell to 5.5 percent, and real per capita disposable income rose 2.9 percent. Meanwhile, retail dairy prices remained favorable for consumers; dairy prices rose only 2.3 percent in 1988, compared with increases of more than 4 percent in prices of all food or of all items.

Despite the favorable economy, early 1988 sales suffered from declining sales of cream-based products, which had fallen during late 1987 after 3 years of extraordinary growth. January-March 1988 commercial disappearance of all dairy products (milk equivalent, milkfat basis) fell more than 2 percent on a daily average basis. Modest improvement during the second quarter left commercial use slightly below a year earlier. During the last 2 quarters of 1988, recovering sales of cream-based products helped total commercial use post a 3-percent rise.

Total 1988 commercial use came to 137.1 billion pounds, up about 1 percent from 1987. Since 1983, commercial use has grown an unprecedented 12 percent. Sales have risen every year since 1980.

Sales of fluid milk and cream rose slightly last year. Sales of beverage milk in Federal order markets and California rose 0.6 percent; a 4-percent increase in use of lowfat and skim milks outweighed a 3-percent drop in whole milk sales. Sales of cream items rose modestly in 1988, the 17th consecutive annual increase in fluid cream use.

Use of frozen dairy products and cottage cheese was generally lackluster, although late 1988 sales were stronger than earlier in the year. Ice cream sales fell 2 percent, as the sales boom in premium ice creams ended. Yet the new premium hard ice milk helped boost ice milk sales 6 percent. Cottage cheese sales fell once again; a small increase in use of lowfat cottage cheese failed to offset a drop in sales of creamed cottage cheese.

Commercial disappearance of American cheese jumped 6 percent in 1988, the largest rise since 1984 and the second largest since 1976. American cheese sales were helped by the strong economy and the end of direct distribution of Government cheese. Commercial use of other cheese varieties increased a relatively small 3 percent. Much of the slowing resulted from a much smaller rise in Mozzarella use. Sales of Mozzarella rose only 4 percent in 1988, after doubling during 1981-87.

The difference between cream- and skim-milk based products can be seen in 1988 commercial use of butter and nonfat dry milk. An October-December increase of more than 10 percent raised 1988 commercial use of butter to the 1987 level, although butter sales were weak during the first 5 months of 1988. Meanwhile, commercial use of nonfat dry milk jumped by about half to the largest since 1974. Strong domestic use was boosted by commercial exports after international prices reached domestic levels about midyear.

For further information, contact: Ken Nelson, coordinator; Kevin Bost, hogs; Bob Bishop and Larry Witucki, broilers, turkeys, and eggs; Ron Gustafson, cattle; and Jim Miller and Sara Short, dairy. All are at (202) 786-1285.

Field Crop Overview

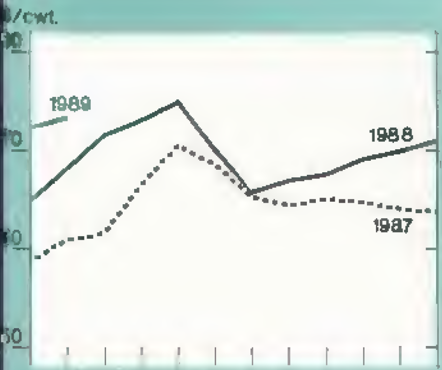
Smaller crops and higher prices characterize the 1988/89 season for grains and oilseeds, while a large crop and rising U.S. stocks mark the year's cotton situation. The main production uncertainty is the size of Southern Hemisphere crops.

While interest for wheat is shifting to the 1989/90 season, very little can be said about prospects. The first USDA production estimates for the U.S. and the world will be issued in May, and full international details will be available in July.

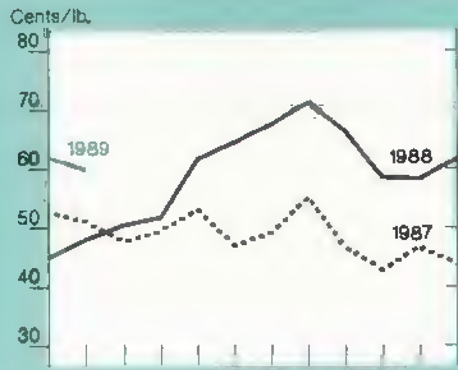
Initial area indications of most U.S. field crops were published in USDA's *Prospective Plantings* report at the end of March. USDA's National Agricultural Statistics Service does not issue survey-based U.S. crop estimates until August, except for winter wheat in May and barley in July.

Commodity Market Prices

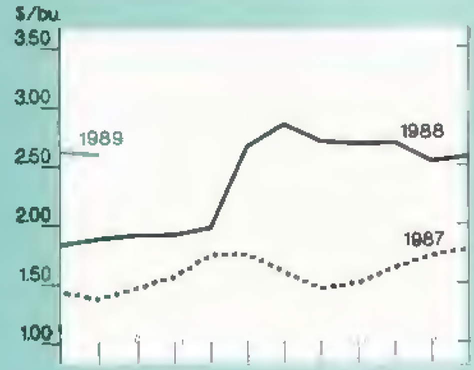
Choice steers, Omaha



Broilers, 12-city average

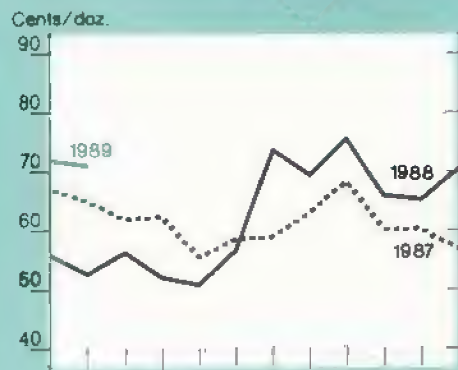


Corn, Chicago[3]

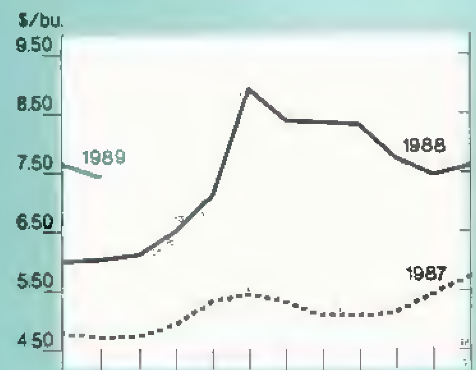


Feeder cattle, Kansas City[1]

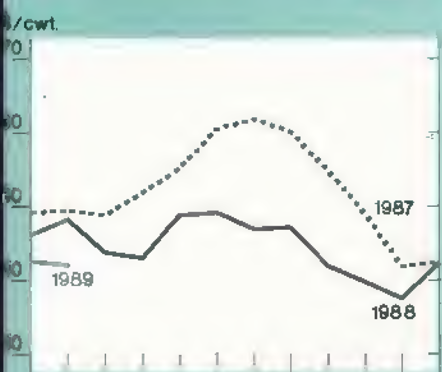
Eggs, New York[2]



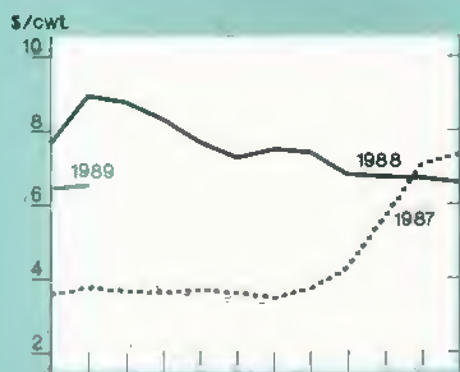
Soybeans, Chicago[4]



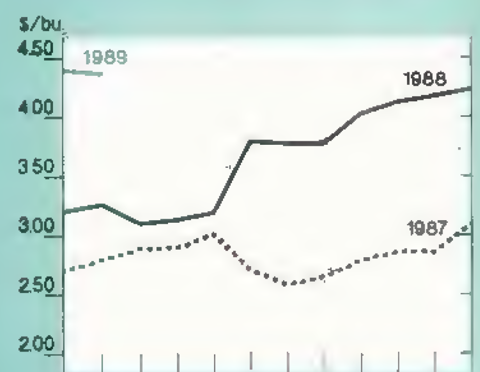
Barrows and gilts, 7 markets



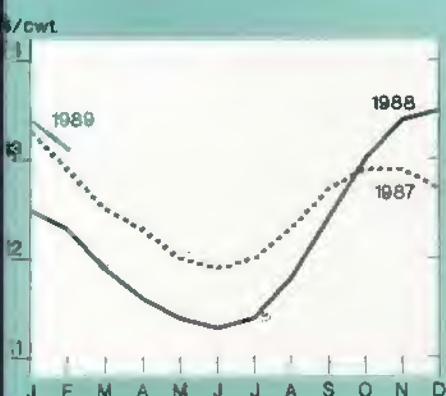
Rice (rough), SW Louisiana



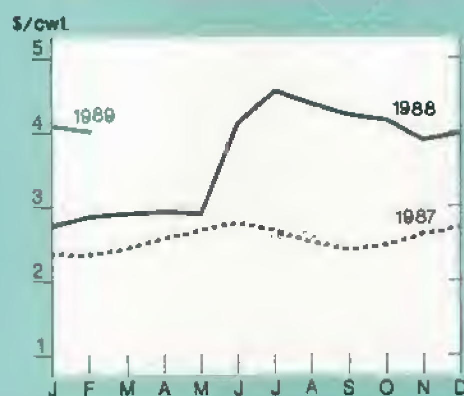
Wheat, Kansas City[5]



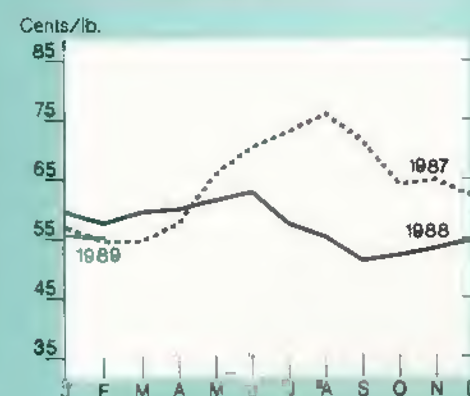
All milk



Sorghum, Kansas City



Cotton, average spot market



[1]600-700 lbs., medium no. 2. [2]Grade A large [4]No. 1 yellow. [3]No. 2 yellow. [5]No. 1 HRW.

Generic Certificate Update

Producers who participated in the 1988 feed grain program are receiving about $125 million in 5-month deficiency and 0/92 provision payments in the form of generic certificates this March and April. Sorghum producers are receiving about $25 million in 5-month deficiency payments. The interim sorghum deficiency payment rate of 48 cents per bushel exceeds the advance payment rate by 4.8 cents.

Most of the certificate payments are going to producers who participated in the 0/92 program, with about $85 million going to corn producers and $15 million to sorghum producers.

Producers who signed up for the 0/92 option are receiving a guaranteed deficiency payment on 92 percent of acreage enrolled under this option. The guaranteed payment rate for 0/92 producers is $1.10 per bushel for corn and $1.08 for sorghum.

At this time, eligible producers will receive payments equal to the difference between the target price and the basic loan rate, or $0.72 per bushel for corn and $0.68 per bushel for sorghum, less any advance payments. The balance of the 0/92 payments will be made later.

USDA issued $22.6 billion in generic certificates from April 1986 to January 31, 1989. Certificate exchanges for grains and oilseeds as of March 7, 1989, totaled $21.3 billion. Exchanges for cotton as of March 7 and for cash as of January 31 brought total exchanges since April 1986 to $22.5 billion. Assuming issuances in February were at January levels, availability at the end of February likely was just over $200 million.

The March and April issuances, together with continued issuances under the Export Enhancement Program and the Targeted Export Assistance Program, will provide needed liquidity to the certificate market. *[Kenneth Bailey and Joe Glauber (202) 786-1840]*

Cumulative Generic Certificate Exchanges as of March 7, 1989

Commodity 1/	Unit	CCC inventory 2/	Producer loans	Total
Food grains				
Wheat				
Volume	(Mil. bu.)	781.9	628.7	1,410.7
Value	(Mil. $)	2,046.9	1,598.6	3,645.5
Rice				
Volume	(Mil. cwt)	42.9	0.44	43.3
Value	(Mil. $)	158.2	2.0	160.2
Feed grains				
Corn				
Volume	(Mil. bu.)	1,614.5	7,178.9	8,793.5
Value	(Mil. $)	3,431.6	12,367.0	15,798.6
Grain sorghum				
Volume	(Mil. bu.)	243.7	469.9	713.6
Value	(Mil. $)	490.5	687.3	1,177.7
Barley				
Volume	(Mil. bu.)	101.5	181.5	283.0
Value	(Mil. $)	163.9	303.4	467.3
Cotton				
Volume	(Mil. bales)	.90	6.42	7.32
Rye, oats, soybeans				
Value	(Mil. $)	34.5	34.1	68.5
Total value 3/	(Mil. $)	6,325.5	14,992.4	21,317.8

1/ Other program commodities, for which few or no exchanges have been made, include honey, nonfat dry milk, butter, and cheese. 2/ CCC loans as of March 3, 1989. 3/ Does not include values for cotton exchanges.

Source: Agricultural Stabilization and Conservation Service, USDA.

Certificate Availability as of March 7, 1989

	$ mil.
Issued to date	22,646
Redeemed:	
Grains & oilseeds	21,318
Cash	440
Cotton (generic)	727
Total	22,485
Total availability	160

Certificate Issuances and Exchanges, April 1986 to March 7, 1989 1/

Period	Carryin	Issuance	Exchanges: Corn	Exchanges: Wheat	Exchanges: Other	Carryout	Premium
	$ mil.						Percent
Apr. -Nov. 86	---	2,725.7	875.0	385.8	47.3	1,217.6	113.1
Dec. -Feb. 87	1,217.6	2,004.5 2/	1,035.2	180.6	82.2	1,923.9	105.4
Mar. -May 87	1,923.9	3,407.9	2,565.1	539.2	178.0	2,049.6	103.4
Jun. -Aug. 87	2,049.6	1,240.6 3/	932.5	217.3	73.7	2,066.6	106.5
Sept.-Nov. 87	2,066.6	3,127.9 4/	1,682.2	419.6	210.3	2,882.5	105.5
Dec.- Feb. 88	2,882.5	4,838.6	2,460.3	953.2	290.0	4,017.6	103.7
Mar.- May 88	4,017.6	2,723.8	2,077.1	534.2	169.7	3,960.4	100.1
June- Aug. 88	3,960.4	1,315.5	2,981.9	269.3	305.5	2,125.2	99.4
Sept.-Nov. 88	1,719.2	1,195.2	655.0	100.3	163.3	1,995.7	98.5
Dec.- Feb. 89	1,995.7	66.0 5/	512.6	44.2	145.9	1,359.0	98.9

1/Does not include certificate issuances and exchanges for cotton or certificate exchanges for cash. 2/ Through 1/31/87. 3/ Through 7/31/87. 4/Through 10/31/87. 5/Through 1/31/89.

Higher U.S. prices are boosting the value of U.S. exports of field crops and products in fiscal 1989. While the combined export volume of grains, oilseeds, cotton, and related products is expected to be virtually unchanged from last year, export value will increase 10 percent.

Wheat Supplies Tight

World wheat production in 1988/89 is down less than 1 percent. However, an important factor for the wheat sector is that exporters' crops are the smallest in 9 years. Large beginning stocks in the U.S. and the European Community provided some cushion from the shortfall. But exporters' ending stocks probably will be the smallest since 1974, and prices are up sharply.

The February U.S. Gulf price for hard winter wheat was $173 per ton, up $40 from a year earlier. Prices for most U.S. purchasers are up even more, since Export Enhancement Program (EEP) bonuses on sales through February of this marketing year have averaged $19.90 per ton, down from $35.40 for the same period in 1987/88. Last year over 60 percent of U.S. exports were under the EEP. Gulf prices for all of 1988/89 will be the highest since the early 1980's.

Higher prices and tight exporter supplies are cutting trade volume in 1988/89 by around 8 million tons, to 98 million. The Soviet Union accounts for most of the decline, having cut wheat purchases in favor of coarse grains.

The early 1989/90 outlook is for a larger U.S. wheat crop. Planted acres for winter wheat (which is typically about three-quarters of all U.S. wheat) are about 12 percent above 1988/89.

However, cold weather and limited soil moisture in some regions may have reduced potential yields. After a dry and relatively warm early winter, frigid arctic air passed over much of the nation during February, including the Pacific Northwest and reaching as far south as southern Texas. Much of the Southern Plains had freezing rain.

The extent of yield losses and abandonment due to winterkill will not be apparent until this spring, when plants begin to emerge from dormancy (see the Commodity Spotlight on Weather in this issue).

World Coarse Grain Trade Up Sharply

World 1988/89 coarse grain production of 721 million tons is the smallest since 1983/84, owing mostly to a smaller U.S. corn crop. Large U.S. stocks have cushioned the impact of the smaller crops.

World trade volume is forecast to rise nearly 12 million tons to 95 million, the largest in 4 years. Ballooning Soviet coarse-grain imports are likely to account for most of the gain. In the face of larger demand to increase livestock production, Soviet imports are doubling because of a smaller domestic crop and lower imports of wheat for feeding livestock.

World market prices are up because of tighter supplies. The February Gulf price of corn averaged $118 per ton, up from $88 a year ago.

U.S. coarse grain exports, projected at 59 million tons, will be the largest since 1980/81. Sorghum and corn sales are sharply higher than last year, but barley exports are projected to drop. Barley sales will continue to depend almost totally on EEP support.

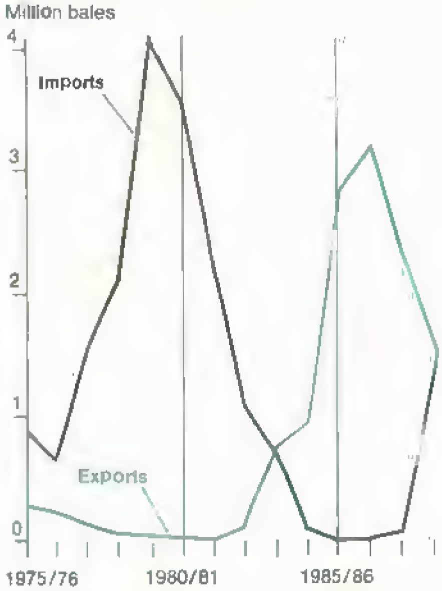
World Oilseed Crop Is Large Despite Lower U.S. Output

World 1988/89 oilseed production is down 4 percent from last year, but is expected to be the second largest on record. While soybean production is forecast to be down 10 percent from last year's record, peanut and sunflower seed production will reach record highs.

Despite severe drought damage to Argentina's soybean crop, South American production is expected to set a record because of a much larger Brazilian crop. Brazil appears to have good yields during years when Argentina has poor yields. The Brazilian increase offsets part of the 20-percent drop in the U.S. crop.

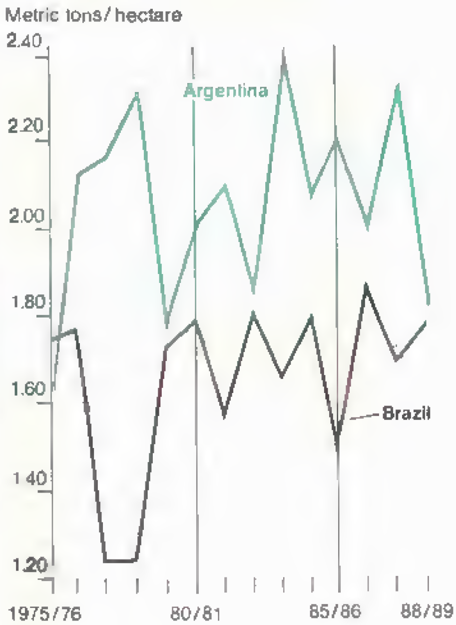
World markets are adjusting to the drop in bean production by cutting soybean trade 18 percent. Because policies in Brazil and Argentina favor crushing rather than export of soybeans, soymeal trade is forecast to rise slightly.

China's Cotton Trade Surplus Disappears



1988/89 forecast.

Brazil's and Argentina's Soybean Yields Move in Opposite Directions



1988/89 forecast.

With tighter supplies, world soybean prices are up significantly from last year. The February Gulf price of U.S. soybeans was $290 per ton, $53 above a year earlier. But prices have trended down after peaking at $345 last June, partly due to adequate supplies of other oilseeds.

U.S. soybean production should recover in 1989/90. Under the 1988 Disaster Assistance Act, farmers will be allowed to

plant soybeans on up to 2.8 million acres of program crop (e.g., corn and cotton) base this year.

Farmers still have the option to plant fewer acres than allowed and shift back to a program crop. But deficiency payments on acreage originally signed up for soybeans and then shifted to a program crop will be delayed.

Actual soybean plantings on permitted acres will depend on many factors, including soybean prices later this spring and the likelihood of individual farmers reaching the $50,000 Federal payment limitation.

U.S. Cotton Exports Drop, Stocks Grow

World cotton production for 1988/89 is up 5 percent and the second largest on record. U.S. production is 15.4 million bales, the highest since 1981/82. But U.S. exports are down 1.1 million bales from last season to 5.5 million, despite a 3-percent increase in world trade. Uncompetitive U.S. prices, together with good competitor crops, are the main reasons for the drop.

While exports are down for the year, prospects improved recently because of unexpected large purchases by China. China's imports are forecast to jump from 86,000 bales last year to 1.5 million this year. A below-plan crop and growing consumption have cut stocks to the lowest level in 6 years. China is buying well into the marketing year, and with other exporters' supplies largely committed, is purchasing most of its needs from the U.S.

The large crop and lower use have raised U.S. stocks 51 percent. The weighted average U.S. market price for the first 5 months of the marketing year (August/July) was 56 cents per pound, down 14 percent from a year earlier.

U.S. cotton production, most of which is upland cotton, likely will drop in 1989/90. The acreage reduction requirement for participating upland farmers was doubled to 25 percent, significantly cutting the probable planted area.

Extra-long staple cotton (ELS) is only a small share of the U.S. crop, but a record 338,000 bales are expected in 1988/89. In contrast to upland cotton, the 1989/90 outlook is for larger ELS acreage and production. With market prices high relative to target prices, enrollment in the 1989 program is likely to remain low, even though the acreage reduction requirement for ELS has been cut from 10 to 5 percent. *[James Cole (202) 786-1840 and Frederic Surls (202) 786-1824]*

For further information, contact: Sara Schwartz, world food grains; Edward Allen, U.S. wheat; Janet Livezey, U.S. rice; Peter Riley, world feed grains; James Cole, U.S. feed grains; Bob Cummings, world oilseeds; Roger Hoskin, U.S. oilseeds; Carolyn Whitton, world cotton; Bob Skinner, U.S. cotton; Jim Schaub, U.S. peanuts. World (202) 786-1824; U.S. (202) 786-1840.

High-Value Crop Overview

Weaker Dollar, Lower Trade Barriers Boost Exports

Rising U.S. exports of horticultural products and tobacco, largely due to a declining dollar, have strengthened demand and helped sustain producer prices in the face of rising production. U.S. export enhancement activities may have contributed to foreign sales growth. Liberalized quotas in some key markets may further expand fruit and vegetable exports in 1989.

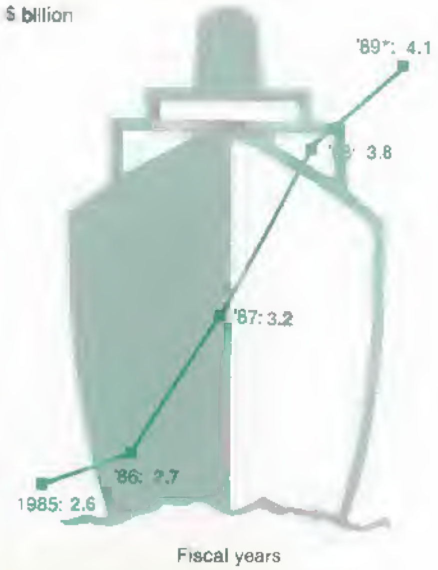
Citrus Leads Fruit Exports

Although citrus exports are off to a slow start, record levels are expected for 1988/89 (October/September). Orange exports (excluding typically underreported shipments to Canada) are projected at 300,000 metric tons, up from 240,000 last season when inadequate supplies of preferred-size fruit depressed shipments.

Importers in Hong Kong and Japan, two major destinations, prefer smaller oranges. Increases in Japan's annual import quota will help boost sales.

Grower prices for fresh oranges in early winter were higher because of reduced shipments from California. Prices fell during January and February when marketings of California navels expanded.

U.S. Horticultural Exports May Rise $1½ Billion from 1985



*1989 forecast. Includes all fruits & vegetables (except pulses), fruit juices, tree nuts, & wines.

Imports of frozen concentrated orange juice (FCOJ) likely will fall in 1988/89 (December/November). Production in Florida has been rising for the past several years, as the industry rebuilds following devastating freezes in the early 1980's.

Dry weather lowered juice production in Brazil, reducing the amount available for export. Brazil is the main source of U.S. FCOJ imports. Despite expected lower imports, Florida canners were quoting FCOJ prices at $4.92 per dozen 6-oz. cans, down from $5.74 a year ago.

U.S. grapefruit exports held at about last year's pace early in the season, but are projected slightly higher for the remainder of this year. Sales to Japan should rise when Japan's duty is reduced from 25 percent to 15 percent on April 1, 1989, in accordance with the U.S.-Japan Citrus Agreement. Despite strong export demand, prices in February were lower than a year ago because of a large crop and small-size fruit.

A small increase in Japan's purchases of lemons likely will mean minimal growth in lemon exports. Most lemon shipments go to Japan.

Apples were the star among fresh noncitrus fruit exports in 1987/88. Abundant supplies and low prices, aided by the weaker dollar, propelled overseas

Higher Prices Follow Ban On Chilean Fruit Imports

The U.S. Food and Drug Administration's decision to detain fresh fruit imports from Chile at the height of the import season reduced supplies of soft-skinned fruits such as grapes, peaches, plums, and nectarines. This action could raise consumer fruit prices for the remainder of the spring.

After cyanide was found in a sample of Chilean red seedless grapes, the FDA Commissioner recommended on March 14 that all fresh fruit imported from Chile be pulled from the food distribution system. Most grocery chains cleared their shelves of the fruit, and prices advanced for competing fruits and non-Chilean soft-skinned fruits.

Although restrictions on Chilean grape and berry imports were lifted on March 17, the disruption in Chilean fruit imports strengthened demand for domestically produced items such as apples, pears, strawberries, oranges, and grapefruit. Fresh fruit prices in January already were 11 percent above a year earlier, and are likely to remain higher the rest of this spring, even with a resumption in grape imports from Chile. U.S. and Chilean officials reached an accord providing stepped-up inspection of the fruit.

Chile is the major supplier of soft-skinned summer fruits during the winter, when cold weather precludes domestic production. Nearly all the grapes, plums, and peaches that are marketed in the U.S. between December and April are grown in Chile.

Chile also exports apples and pears to the U.S. from February through April, when domestic suppliers draw these fruits from cold storage. However, Chilean imports represent only a small proportion of U.S. apple and pear consumption.

Apples and pears in cold storage and imports from other countries are adequate for U.S. needs this year. Apple stocks on January 31 were 16 percent below a year earlier, but 15 percent higher than 2 years ago. January pear stocks were up 19 percent following a large 1988 crop. *[Glenn Zepp (202) 786-1882]*

Grapes Key to Chilean Growth

Chile exported 864 million pounds of fruits and vegetables valued at $324 million to the U.S. in 1988. Chile also exports large amounts of fruits and vegetables to Japan, the European Community, and other Northern Hemisphere countries.

Grapes ranked second only to copper in Chilean exports valued at $1.2 billion last year.

In 1988, Chile exported 260,000 tons of fresh grapes to the U.S. valued at $207 million, and 38,000 tons of apples valued at $15 million. Grapes alone were 59 percent of Chile's agricultural exports to the United States. Over 90 percent of Chile's grapes are shipped to the U.S., compared with less than 5 percent of its apples. Most of the grapes are marketed on the eastern seaboard.

During the past decade, Chile, with the help of U.S. and Israeli production technology and marketing know-how, has developed a very successful export business in fresh table grapes. Chile has capitalized on its Southern Hemisphere location by capturing the off-season table grape market in the U.S. when supplies, mostly from California, are low.

Chilean grapes can take advantage of the spring "market window" in the U.S. The U.S. International Trade Commission has set tariffs for grapes imported between February and March 31 at $1.41 per cubic foot. However, grapes may enter duty free between April 1 and June 30. Tariffs are assessed at $2.12 a cubic foot from July 1 to February 14. The tariff schedule makes late spring the most profitable time for shipping grapes to the U.S.

California grapes begin coming to market after April, but supplies are largest during July-October. Chilean grapes reach the U.S. market during January-June, while imports from Mexico arrive mainly in May and June.

A disruption in Chile's grape exports could significantly affect Chile's economy. Chile, like many other Latin American countries, is trying to build up foreign exchange earnings to help pay its foreign debt and fuel economic development. *[Christine Bolling (202) 786-1610]*

shipments 80 percent above the previous year and cut imports.

Despite lowered trade barriers in some countries, 1988/89 apple exports are projected at only 220,000 metric tons, down 12 percent from last year. Higher prices and smaller supplies account for the scaled-down prospects. Grower prices averaged 18.1 cents per pound in February, 39 percent above a year ago.

Apple juice imports, which have grown dramatically in recent years, were running ahead of year-earlier rates in July-November. But with higher apple prices in 1988/89, juice imports likely will resume their growth. The largest portion of juice imports comes from Argentina, where the dollar remains stronger.

Large supplies are spurring U.S. exports of table grapes and pears in 1988/89, with shipments of both well ahead of a year ago. Until the recent cyanide incident, Chile and New Zealand were escalating noncitrus competition by increasing fresh fruit exports to the U.S. during the winter and spring.

The U.S. is exporting more wine and importing less. U.S. exports grew nearly 80 percent in 1988, and are projected to rise another 25 percent in 1989. Still, the U.S. imports about 50 gallons of wine for each gallon exported.

Moderately larger foreign shipments and higher prices are expected to boost the value of tree nut exports 20 percent in 1988/89 to $900 million. Abundant almond output in 1987 lowered prices and more than doubled exports during 1987/88. Although 1988 almond production fell and domestic prices rose, supplies will be enough--due to large carryover stocks--to moderately boost exports in 1989.

Walnut exports face increased competition from China, where a large crop has increased exportable supplies. U.S. walnut prices rose this winter due to a smaller 1988 crop. Pistachio exports are expected to rise in light of 1988's large crop and more industry promotion.

Vegetable Exports Strong To Japan, East Asia

Most U.S. vegetable exports go to Canada, but the lion's share of offshore exports goes to Japan and East Asian countries, where a declining dollar has turned U.S. products into bargains. Prospects for 1989 point to expanded sales of fresh asparagus and onions to Japan, which took 70 percent of U.S. asparagus exports and 50 percent of onion exports in fiscal 1988.

Last year's drought reduced U.S. production of sweet corn, green peas, and snap beans, causing higher prices that likely will curtail 1989 foreign sales. Sweet corn production for canning was down 17 percent in 1988. Sweet corn typically accounts for about 60 percent of canned vegetable exports. Exports are forecast to fall one-fifth in 1989, while value will remain about unchanged because of higher prices.

The drought's effects were less severe on vegetables for freezing. Nevertheless, frozen sweet corn exports may drop a tenth from last year, although value probably will rise due to higher prices. Strong demand from Japan and East Asia could boost frozen french fry exports this fiscal year. But the rate of growth in fry exports may not match that of the past 3 years due to higher domestic prices.

Mexico supplies well over half of U.S. fresh vegetable imports. Mexican shipments rose an average 8 percent a year during the past 5 seasons. Sharp devaluations of the peso during 1986 and 1987 enhanced Mexico's competitiveness. Mexico has planted about the same area to export vegetables as last season, and has good reserves of irrigation water.

Exports Sustain U.S. Cigarette Output

Despite declining domestic tobacco use, an 18.5-percent surge in exports advanced U.S. cigarette production for the second year in 1988, bolstering prices. Cigarettes accounted for 91 percent of the value of manufactured tobacco-product exports. Sales expanded to all major U.S. markets. Japan, Belgium-Luxembourg, and Hong Kong buy the most U.S. cigarettes.

The declining dollar and the generally good quality of the 1988 crop are boosting exports and cutting imports of unmanufactured tobacco in 1988/89. Exports rose 12 percent last year and may rise further in 1989. Imports for consumption in 1988 were 12 percent below a year earlier.

U.S. companies manufactured an estimated 705 billion cigarettes in 1988, 2 percent more than the year before. However, U.S. consumption declined 2 percent and was down for the fourth year in a row. Average use among adults 18 years and over fell from 3,196 in 1987 to about 3,100.

The decline in smoking stems from higher prices, which are due to rising costs, growing foreign demand, and increased excise taxes, as well as from health concerns, antismoking activity, and restrictions on where people can smoke. Retail cigarette prices rose 9 percent in 1988, more than double the rise in consumer prices.

Strong demand and shrinking tobacco stocks boosted growers' 1988 returns. Flue-cured prices averaged 2.7 cents a pound above 1987; burley prices averaged 4.7 cents higher. Prices for all other types also were higher.

Sugar Trade Regulated by Quotas

U.S. sugar exports are nearly all refined sugar or sugar-containing products that were manufactured from quota-exempt imported raw sugar designated for re-export. Imports for domestic use are tightly regulated by quotas.

The import quota for calendar 1989 was raised 17 percent from the year before, to 1.24 million short tons, because of 1988's drop in U.S. production. Drought and disease-reduced sugarbeet yields are responsible. Meanwhile, U.S. sugar use is rising, reversing the decade's trend. *[Glenn Zepp (202) 786-1882]*

For further information, contact: Ben Huang, fruit; Shannon Hamm, vegetables; Peter Buzzanell, sweeteners; Verner Grise, tobacco. All are at (202) 786-1886.

Commodity Spotlights

Wheat Exports Provide Outlet For Production Growth

Growth in exports following World War II provided a market for tremendous growth in U.S. wheat production. Higher yields resulted from new wheat varieties, improved fertilizer and production practices, regional shifts in acreage, and the changing structure of agriculture, including larger farms. Planted acreage remained relatively stable. Had yields increased without growth in exports, the resulting lower wheat prices would have driven land out of wheat production.

During periods of excess supply, U.S. farm policy attempted to promote exports, support prices, and stabilize farm income. But the resulting higher prices sometimes reduced exports by reducing U.S. competitiveness and promoting foreign production. This led to stock buildups and more downward pressure on farm prices.

Exports Followed Production Upward

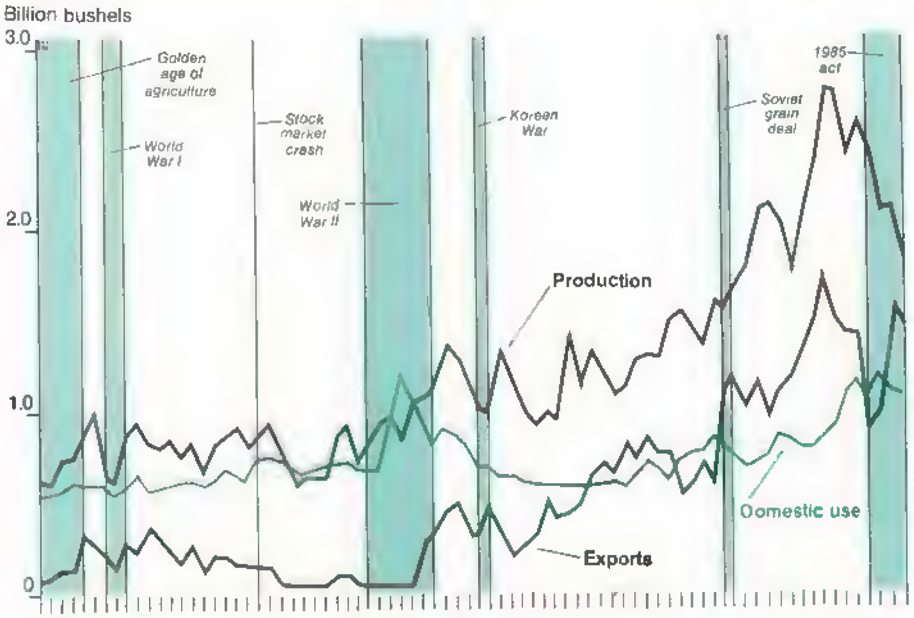
Domestic wheat production was volatile but did not trend upward during the first 40 years of this century. Domestic use was relatively stable, as an increasing population was offset by decreasing per capita use.

Most wheat was consumed domestically, with very little going into exports. U.S. exports fell steadily between the end of World War I and the beginning of World War II as Western Europe recovered from the devastation of World War I and suffered through the Great Depression.

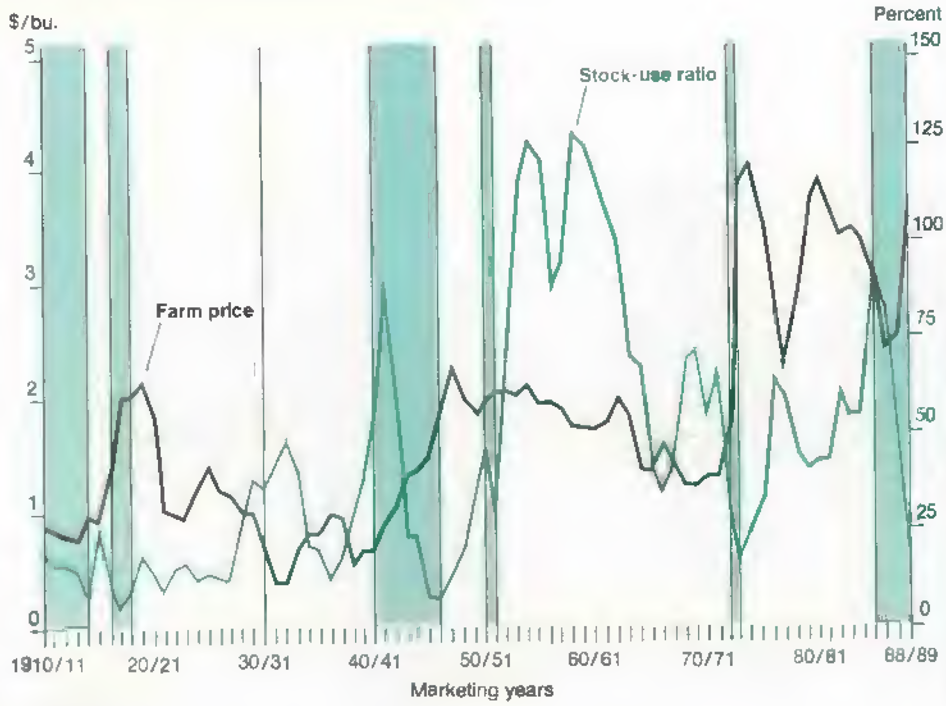
Domestic use escalated to 1.2 billion bushels during World War II due to increased use for feed, increased grain consumption during meat rationing, industrial use, and military procurement. U.S. exports improved considerably with stepped-up shipments to war allies and for civilian relief.

After the war, domestic use returned to prewar levels, but exports remained brisk. U.S. agriculture emerged from the war unscathed and able to meet strong world demand. This strong demand was mostly due to the years it took European agriculture to recover from the war.

Exports Follow Wheat Production's Upward Path



When Stocks Are Low Relative to Use, Prices Rise



1988/89 forecast.

Stocks Were Burdensome In the 1950's

The growth in wheat exports was unsteady. Exports fell from a postwar high of over 500 million bushels in 1948/49 to a low of 214 million following the Korean War in 1953/54. This was due to the recovery in European agriculture and to increased competition from other exporters.

Nominal farm prices declined throughout the 1950's and 1960's, from almost $2.30 per bushel just after World War II to $1.24 in 1968/69. Domestic use began a gradual decline, from a high of 1.2 billion bushels during World War II to under 600 million by the early 1960's.

As Government programs sought to support prices and maintain incomes, stocks accumulated. Production exceeded use despite generous food aid programs in the 1950's and early 1960's. Production did not fall, despite reductions in price supports and base acres and even a drought in 1953.

Improved U.S. exports and paid acreage diversions reduced stocks from a high of 1.5 billion bushels in 1960/61 to about 500 million in the mid-1960's. But as farm policy reduced Government stocks, world conditions shifted in the 1970's and demand soon exceeded world production.

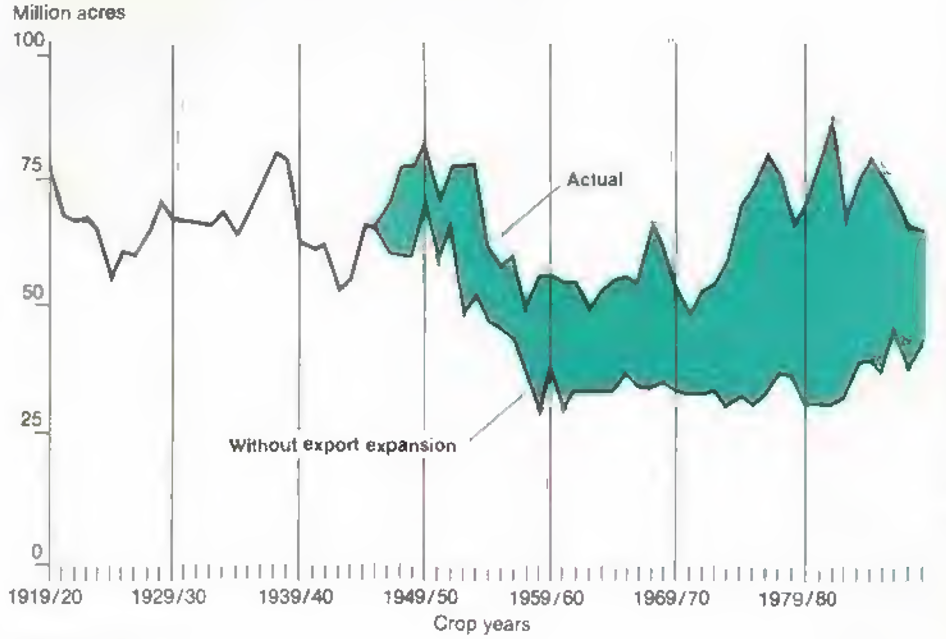
Expansion Marked The 1970's

Strong world demand, production shortfalls in some countries, large Soviet grain purchases, and lower exportable supplies in Canada and Australia, helped U.S. wheat exports to surge again in the early 1970's. Exports grew to an unprecedented 1.2 billion bushels in 1973/74.

Wheat prices rocketed from $1.34 in 1971/72 to a record $4.09 in 1974/75. Rising U.S. yields and a further drawdown of stocks met the strong export demand.

By the end of the 1973/74 marketing year, U.S. stocks had fallen to 340 million bushels, the lowest since the Korean War. Relaxation of acreage set-aside re-

Wheat Plantings Sustained by Growing Exports



1988/89 forecast.

quirements and high world prices pushed U.S. wheat production over 2 billion bushels by the mid-1970's. Production and exports peaked in 1981/82.

U.S. exports fell in the early 1980's, however, as world demand fell and the dollar rose. The Government loan rate exacerbated this situation because it was well above market-clearing levels. The combination of a strong dollar and high loan rates made U.S. exports uncompetitive in world markets and encouraged foreign production. U.S. exports were priced out of the international market, causing the U.S. market share to decline.

As a result, U.S. stocks accumulated. When demand did not grow as expected, incentives were offered to reduce production. These included the payment-in-kind program, as well as annual acreage reduction and paid land diversion programs. But stocks burgeoned again to 1.9 billion bushels in 1985/86 as exports continued to fall.

The Food Security Act of 1985 helped bring U.S. supply and demand into better balance. Acreage reduction requirements lowered planted acreage. Lower loan rates and export promotions made the U.S. more competitive in world markets. Government stocks were made available to the market at prices well below the previous release levels.

Improved exports under the 1985 act and the 1988 drought caused ending stocks to drop sharply. The U.S. stocks-to-use ratio fell from 97 percent in 1985/86 to a projected 21 percent in 1988/89. With these reduced supplies, farm prices rose from below the loan rate in 1985/86 to a projected $3.60-$3.85 for 1988/89.

Wheat Acreage Remained Stable

The growth in wheat production following World War II reflected higher yields. Yields were 11-17 bushels per acre during the first 40 years of this century, but began to climb rapidly after World War II to over 35 bushels per acre in the 1980's. Improved practices associated with innovations in machinery accounted for most of the increase just after the war, when modern self-propelled combines replaced the horse-drawn binder and the horse- or steam-powered thresher.

Most improvements in yields, however, occurred during the 1960's and 1970's and are attributed to the introduction of semi-dwarf wheat varieties (See *Agricultural Outlook*, March 1989), improved agricultural chemicals, increased fertilizer use, and larger and more efficient farms.

Total U.S. acreage planted to wheat has not changed appreciably since 1910. Most of the expansion occurred before then with the cultivation of the Great Plains. Wheat acreage since then has varied mostly with Government programs.

Acreage declined under the acreage control provisions of the 1950's and 1960's, but expanded again in the early 1970's after U.S. stocks were depleted and controls were relaxed. U.S. producers responded to high domestic prices and strong export demand during the 1970's with increased wheat plantings.

Wheat plantings would have been much smaller had exports not grown as yields increased following World War II. Production growth from increasing yields was funneled into export channels. Stocks grew if exports fell or if good weather boosted the wheat crop. Exports accounted for an increasing share of total wheat use from the early 1950's through the 1970's.

Prices would have fallen and land would have been withdrawn from wheat production had exports not expanded. Since yields likely would have increased regardless of export volume, excess supplies would have made wheat production unprofitable. The growth in exports since World War II accounted for an estimated 30 million acres, so planted area would have been well below what it was had export demand not taken off.

What Have We Learned From History?

Wheat, like corn and soybeans, is highly dependent on expanding export markets. Stocks accumulate and farm prices fall whenever U.S. exports decline in response to foreign events or domestic policies. Had the export demand for U.S. wheat not expanded following the war, the onslaught of technological improvements and stable domestic use would have resulted in lower prices, reduced farm income, and far less acreage seeded in wheat. *[Kenneth Bailey (202) 786-1840]*

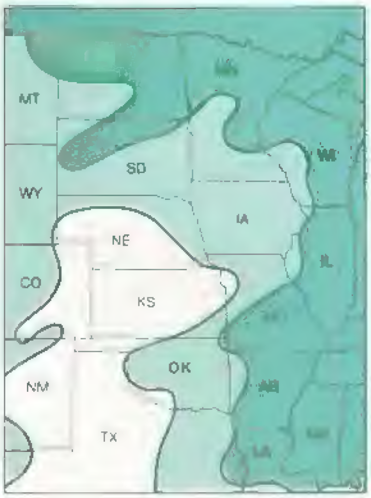
A Dry Winter In U.S. Wheat Areas

One of the driest early winters in the past 40 years has hit key wheat-producing areas in the Plains States. By the end of 1988, dryness had affected much of the U.S. hard red winter wheat region. Stretching from Nebraska southward through Kansas and into the Oklahoma and Texas panhandles, the region accounts for some 60 percent of the country's winter wheat. Winter wheat traditionally makes up about three-fourths of the total wheat crop.

Cumulative precipitation in the region from October 1988 into January totaled under 50 percent of normal. The driest conditions were in Kansas, where October rainfall measured one-third of normal. November and December also were below normal. Though regional precipitation returned to normal in January, it was unusually dry again in Kansas from February into March. In fact, Central Kansas measured less than 25 percent of normal precipitation from February 1 through March 16.

Kansas usually produces at least twice as much winter wheat as any other State. Kansas accounts for about 15-20 percent of the entire winter and spring U.S. crop.

Early Winter Dryness Pervasive in Hard Red Winter Wheat Area



Percent of normal precipitation, Oct. 1, 1988 - Jan. 21, 1989

☐ Less than 50 percent ☐ 50-100 percent
▨ Over 100 percent

State rainfall records place this growing season in perspective. The Kansas rainfall, weighted for crop area, totaled about 2.1 inches from last October through December, according to preliminary estimates. This compares with a long-term average of 4.2 inches.

The main problem from the farmer's viewpoint emerged last October, when rainfall averaged less than an inch. Winter wheat planting in the Plains States is completed in the fall, and rain is needed for successful germination and early growth before the crop enters winter dormancy.

How did the 1988 October-December dryness compare with earlier years? State precipitation totals since 1950 indicate that last year had the fifth driest October-December. The driest was in 1950, when rainfall totaled just 1.5 inches. Other dry fourth quarters occurred in 1966, 1955, and 1976, with 1.6, 1.7, and 2.0 inches, respectively. Last year and the 4 drier years were the only occasions when the 3-month rainfall totaled less than half of the long-term average.

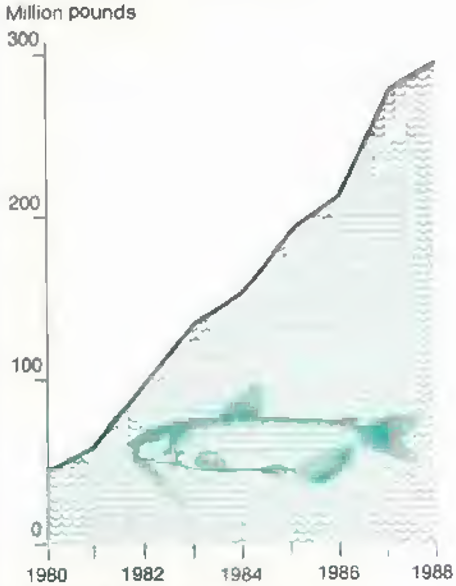
The dryness in Kansas this past winter does not necessarily mean that yields will be below normal, although the crop also has endured insect, wind, and freeze damage. Most of the year-to-year variations in crop yields from trend can be ascribed to weather, though other factors such as insects and disease play a role. Final winter wheat yields are significantly affected by spring rainfall. *[Douglas LeComte (202) 447-7919]*

Catfish Sales Jump 17 Percent

U.S. catfish sales reached an estimated $285 million in 1988, up 17 percent from a year earlier. The increase was driven by higher domestic production and increasing consumption of fish and shellfish. Catfish account for about half of total U.S. aquacultural production.

The amount of catfish sent to processors has grown an average 25 percent per year for the past decade. Catfish are produced commercially in about 20 States. Mississippi, with 18 percent of the producers and 64 percent of the pond area, has almost 80 percent of the production.

U.S. Catfish Output Five Times Above 1980



Volume delivered to processors.

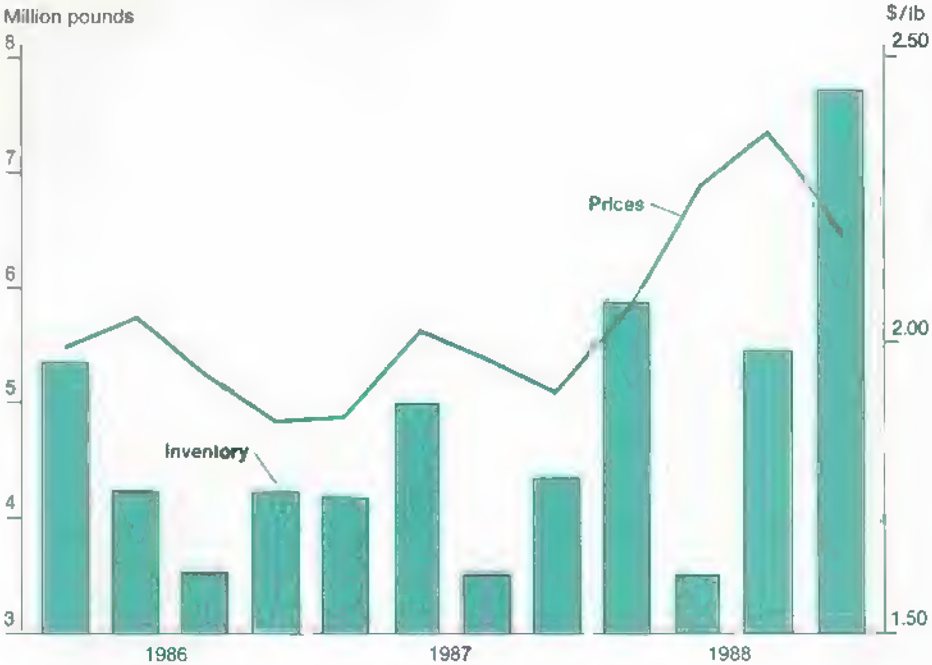
Grower Numbers Decline, But Pond Acreage Up

There were 1,922 commercial catfish operations in the 17 States surveyed as of January 1, 1989, down 3 percent from July 1988. The five States with the most operations were Alabama, Mississippi, Missouri, Arkansas, and Louisiana. The number of operations fell in Mississippi and Arkansas, but rose 29 percent in Louisiana.

While the number of operations fell, area in ponds increased 7 percent to 139,399 acres. Although acreage fell in some States, the five States that account for 92 percent of all acreage (Mississippi, Arkansas, Alabama, Louisiana, and California) had an average increase of 8 percent, led by Louisiana's 40-percent rise and California's 10-percent rise.

With catfish farms decreasing in number but increasing in size, the industry is following the trend of many other farming operations. Estimates of catfish production costs, done at Mississippi State University, show that average production costs fell from \$.68 per pound to \$.60 as farm size rose from 163 acres to 643 acres of pond.

Rising Catfish Prices Triggered Surge In Stocks



The five largest States in terms of sales were Mississippi, Arkansas, Alabama, Louisiana, and California. Mississippi led with average sales of $2,392 per acre, while the others ranged between $1,273 and $2,285. Mississippi grows fish at higher densities than other areas.

California farmers have the second highest sales per acre; their food-size fish sell at $1.61 a pound, over twice the price in the top four producing States. Their price is higher because the fish are sold directly to retail stores, restaurants, and outlets that stock ponds for recreational fishing.

With growers in the 20 aquacultural States adding almost 6,400 acres of new ponds and renovating another 2,200 acres, about 8,600 more acres could be in production by the end of 1989, which would increase U.S. capacity by 6 percent.

Grower Inventories Rise

Grower inventories in January were up from July, except for stocker fish, which were down 16 percent. Food-size fish rose 9 percent, due mainly to large amounts held for Lent, traditionally the busiest period of the year.

The inventory of large fish rose for two reasons. First, the definition of a large fish was lowered from over 3 pounds to over 1.5 pounds. Second, many fish remained on farms well beyond normal market size as growers tried to rid them of off-flavors. Off-flavors occur when the fish ingest materials released in the ponds by dying algae blooms. Off-flavors do not injure the fish, and over time the flavors are purged from their systems.

Sales of large fish in 1988 rose to $10.4 million, as average prices increased from $.72 to $.82 a pound. Sales of food-size fish totaled 325.7 million pounds last year, up 4 percent from 1987. The increase stems from slightly heavier market weights.

Food-size fish sales rose to $249 million, as average prices increased from $.68 to $.77 per pound. Prices ranged from $1.61 per pound in California to $.69 in Alabama, and were generally lower in the Delta States.

Growers Report Losses Of 35 Million Pounds

Growers estimated that they lost almost 35 million pounds of catfish to various causes last year, chiefly disease (39 percent) and oxygen depletion (18 percent). Losses varied from State to State. In most States winterkill was not a major problem, but it accounted for 20 percent of losses in Mississippi. Arkansas attributed 32 percent of losses to flooding, and California reported that 35 percent of losses were due to birds.

In the largest producing States, most of the fish is sold to processors. Processors buy over 90 percent of the food-size fish in Mississippi and Alabama. In California, however, 62 percent is sold directly to restaurants and food stores, and 23 percent goes to recreational fishing operations.

Catfish Processing Near 300 Million Pounds

A record 295 million pounds of catfish were processed last year. While 5 percent above 1987, the rise was less than the 31- and 12-percent increases of the 2 previous years. The average farm price jumped 24 percent last year.

With increased prices and production in 1988, catfish farmers selling to processors realized a 30-percent increase in gross returns. However, higher feed and energy costs raised production costs 20-25 percent, so net returns were only 5-10 percent higher.

The lower-than-expected supply of harvestable fish and excess processing capacity caused processors to bid up prices. In 1988, output from catfish processors was 149.7 million pounds, up only 2 percent from a year earlier, but 31 percent higher than in 1986.

For catfish processors, the price runup late last spring and early summer led to a slowdown in sales and a buildup of inventories. Average prices for fresh product peaked in August at $2.23 per pound, and fell 8 percent to $2.06 in January. The weighted-average price for frozen catfish peaked in August at $2.36 per pound and dropped 10 cents by January.

Inventories of frozen catfish totaled 4.9 million pounds at the beginning of 1988, only about a 27-day supply, but rose to 7.8 million pounds by the end of January 1989. Stocks of frozen fillets rose 118 percent and accounted for most of the surge in inventories.

Over the past several years, yearend inventories averaged about 4 percent of

yearly sales. Yearend inventories for 1988, while high by historical standards, amounted to only 6 percent of 1988 sales.

Outlook for 1989 Is Uncertain

Excess capacity in processing and a lack of significant growth in production mean that farm prices for catfish probably will remain near current levels.

Narrow profit margins will pressure processing firms to cut costs and to boost market share. Large inventories could lead to a round of price cutting by processors and a further industry shakeout. However, if prices for other fish products rise, catfish processors may be able to work off inventories while possibly increasing their prices. *[Dave Harvey (202) 786-1885]*

Upcoming Economic Reports

Summary Released	Title
April	
3	Tobacco
11	World Ag. Supply & Demand
18	Rice
19	Agricultural Outlook
20	Oil Crops
	Agricultural Resources
21	Livestock & Poultry Update
	World Food Needs & Availabilities
	Dairy
25	Foreign Agricultural Trade Update
28	National Food Review

World Agriculture and Trade

GATT Negotiations and Liberalizing Trade For Textiles and Cotton

Government representatives meet this month to continue negotiating the Uruguay Round of the Multilateral Trade Negotiations held under the auspices of the General Agreement on Tariffs and Trade (GATT). Among other items, the Multifiber Arrangement (MFA), governing trade in textiles and processed cotton, is on the agenda.

Trade in raw cotton also is being addressed under the agricultural trade liberalization talks. Yet it is unclear how cotton and textile trade liberalization would affect U.S. cotton producers and textile manufacturers.

As world cotton production has expanded, textile and clothing industries in many parts of the world have developed, particularly in developing countries and the newly industrial countries (NIC's) of Taiwan, Korea, and Hong Kong. These countries now compete in world markets with the mature textile and clothing industries of the U.S. and other more highly industrialized market economies.

Many developing countries and NIC's have a comparative advantage in textile and clothing manufacturing due to an abundance of low-cost labor. Further, countries such as China, Pakistan, and India subsidize national cotton production and tax (or restrict) raw cotton exports. These policies subsidize development of national textile and clothing industries by ensuring manufacturers an ample supply of low-cost cotton inputs.

At the same time, countries sometimes protect their textile and clothing industries from import competition by imposing textile import restrictions such as quotas, tariffs, or outright bans.

Early Restrictions and The GATT

The early textile import restrictions applied only to cotton products. Over time, the use of import restrictions gradually expanded into a global system of internationally sanctioned restraints covering a variety of textiles under the Multifiber Arrangement (MFA).

Because of heavy protection, textiles and clothing are a high priority for many countries in the Uruguay Round. The negotiations on textiles and clothing, like those on agriculture, reached an impasse at the midterm review in Montreal last December, and are on hold until the GATT members meet again this month. (See *Agricultural Outlook*, December 1988 and March 1989).

A key issue in the negotiations is the MFA itself. Developing countries would like to eliminate the MFA and integrate this sector into the GATT, or obtain a commitment from major textile and clothing importers not to add new restrictions. Many developed countries resist MFA elimination.

The U.S. supports liberalizing textile trade restraints, but results in this arena depend on strengthening GATT rules in other arenas.

The negotiations are important to U.S. cotton producers as well as textile and clothing manufacturers, because international trade is crucial to both. About half of the U.S. cotton crop is exported. So U.S. cotton producers have an inherent interest in expanding the market for their product by reducing trade barriers and foreign subsidies.

The U.S. imports almost three-fourths as much cotton in the form of textiles as it exports as raw cotton. According to ERS estimates, only 19 percent of U.S. cotton textile imports were manufactured from U.S. raw cotton exports in 1987, down from previous estimates of 25-27 percent several years ago.

U.S. textile and clothing manufacturers face increasing world competition, even with the quota protection provided through the MFA. In 1986 and 1987, over 40 percent of all U.S. cotton textile consumption came from foreign sources, a relatively high percentage by historical standards. Changes in world trade patterns and government policies of major cotton-producing countries help explain the shift towards imports.

Foreign Cotton Output Rose, Exports Accelerated

Since 1977/78, foreign cotton production has increased 39 percent. Much of the growth came from improved cultivation practices, varieties, and input use. These improvements led to large yield gains. While cotton area has expanded in some countries, area for many producers is limited and remains almost unchanged.

In 1977/78, the world's leading cotton producers were the United States, the Soviet Union, China, India, Turkey, Pakistan, Brazil, Egypt, Central America, Mexico, Argentina, Sudan, the French-speaking countries of western Africa, Greece, and Syria. However, China was a major importer and India had just reached self-sufficiency after being a net importer for a number of years. Brazil and Greece had only limited exports.

During the past decade, production grew rapidly in China, Pakistan, Australia, Paraguay, and western Africa. These now rank among the top foreign producers and have become major U.S. export competitors. Output also rose in Brazil, Greece, and India.

But several other previously important cotton regions, including the Soviet Union, Turkey, Egypt, Central America, Mexico, and Syria, cut exports substantially over the past 10 years, because either production fell or domestic use rose.

Recently, foreign producers sold more cotton to major textile exporters in East Asia, eroding U.S. markets somewhat. But except in 1985/86, the U.S. share of the world cotton market has hovered around its historical level of 28 percent in most years. As the largest and most diversified cotton supplier, the U.S. is able to satisfy extra cotton demand when it arises.

Variety of Barriers To Cotton Trade

Most cotton producers have a variety of government farm, export, and development programs and policies that regulate cotton production and trade. These include producers' subsidies such as deficiency payments, reduced-cost inputs, low-interest loans, import quotas, and import licensing. But they also include other policies that tax producers, such as export taxes, export quotas and licensing, government marketing control, and state-set prices.

While subsidizing production can increase producers' competitive advantage in world markets by increasing net returns, taxes reduce returns. Policies taxing cotton are used by many developing countries to promote textile industry development and exports of higher value-added textile products instead of raw cotton.

Cotton production in the centrally planned economies, such as the Soviet Union and China, faces the most extensive government intervention. Recent reforms reduced cotton subsidies somewhat, but producers still receive production bonuses, support for agricultural research and education, and controlled cotton imports, among other subsidies.

These governments also tax producers. They fix prices and monopolize marketing and exporting. On balance, policies taxing cotton probably offset the subsidies.

Pakistan and India exemplify the policies of the more market-oriented developing economies. The two countries subsidize cotton by fixing low fertilizer, water, and electricity prices and providing low-interest loans. Pakistan requires private importers to be licensed, and India prohibits cotton imports except when shortfalls in domestic supplies appear likely.

Both governments also tax cotton. They set the prices paid to producers lower than could be received in world markets. Government-owned companies purchase much of the domestic production, ensuring that national textile industries receive adequate cotton supplies at low prices.

This policy of boosting value-added textile exports over raw cotton exports is typical of other developing cotton countries, such as Turkey, Mexico, and Brazil. It often creates a net tax on producers, even though subsidies may be large.

Developed nations, however, tend to provide net subsidies to raw cotton producers. For example, the U.S. has cotton target and support prices, subsidizes cotton exports through a marketing loan program, and has import quotas. The European Community boosts prices paid to growers in Greece and Spain.

Australia provides the only example of a cotton industry that is nearly free of subsidies and taxes. Australia has virtually no government-run cotton programs; its few subsidies include some guaranteed loans, a loan restructuring program, and very limited government support for agricultural research. It has no cotton import restrictions.

All Australia's cotton purchases and exports are handled by private merchants. Prices are completely market determined, with no support. However, Australia's high import tariffs that protect local industries have the potential to tax producers indirectly through higher prices for agricultural inputs.

Textile Competition Intensifying

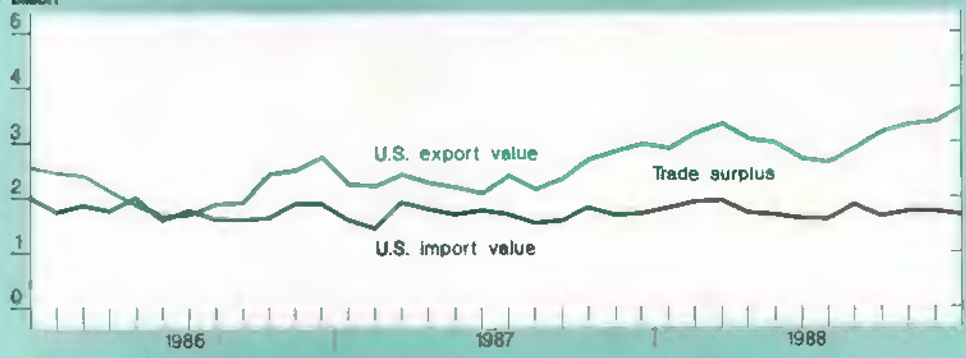
Historically, the biggest raw cotton importers have been the top world textile exporters--Western Europe, Japan, and the NIC's. Very recently, however, these major cotton importers have begun accounting for a smaller proportion of world cotton consumption.

Successful development strategies in China, Pakistan, and India are pushing up both textile manufacturing and cotton production. These countries, as well as Thailand and Indonesia, are capturing

U.S. Agricultural Trade Indicators

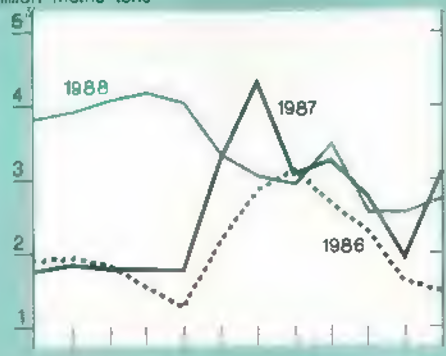
U.S. agricultural trade balance

$ billion



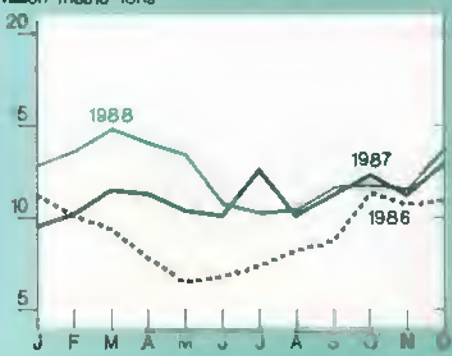
U.S. wheat exports

Million metric tons



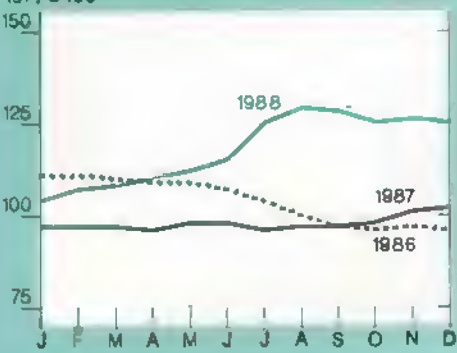
Export volume

Million metric tons



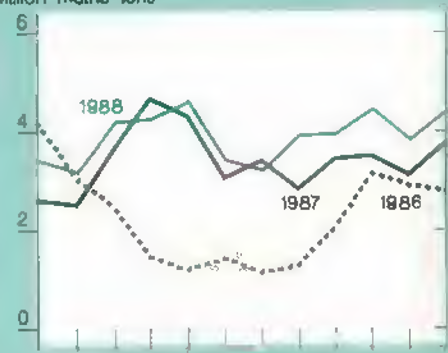
Index of export prices

1977 = 100



U.S. corn exports

Million metric tons

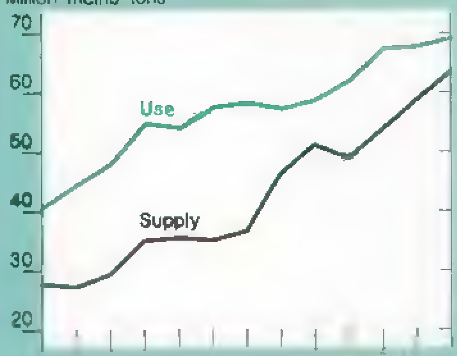


Foreign supply & use of coarse grains

Million metric tons

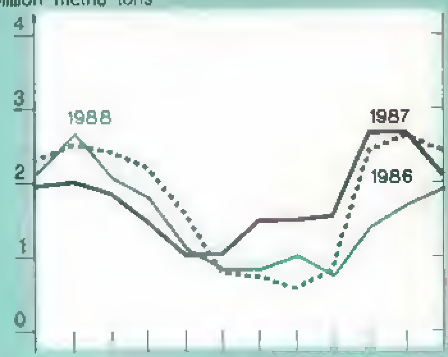
Foreign supply & use of soybeans

Million metric tons



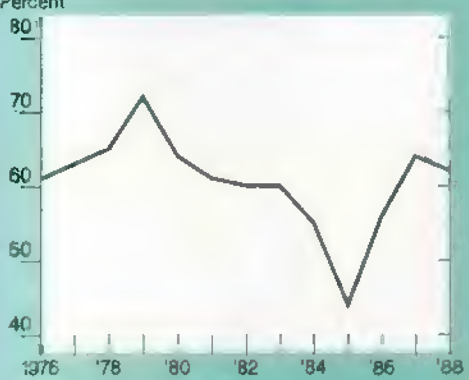
U.S. soybean exports

Million metric tons



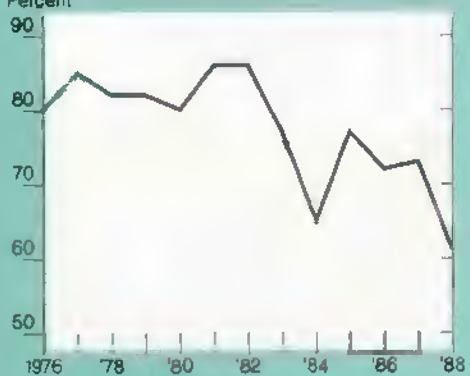
U.S. share of world coarse grains exports[1,2]

Percent



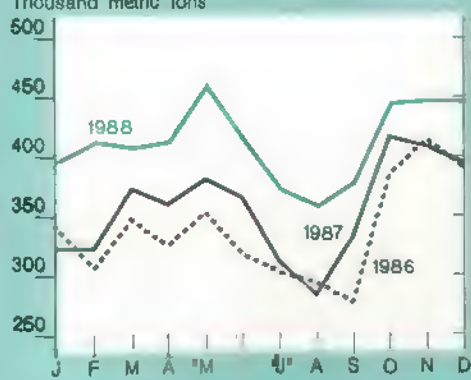
U.S. share of world soybean exports[1,2]

Percent



U.S. fruit & vegetable exports[3]

Thousand metric tons



[1]Excluding intra-EC trade. [2]October-September years. [3]Includes fruit juices.

Evolution of the Multifiber Arrangement

The Multifiber Arrangement (MFA) governs much of world trade in textiles and clothing by providing an internationally sanctioned framework for negotiating bilateral agreements that regulate imports of textiles and clothing made from cotton, wool, or manmade fibers.

The MFA allows for special exemptions from GATT rules by providing standards for imposing import quotas on suppliers who cause "market disruptions." Countries imposing restrictions can do so without compensating their trading partners; restrictions may be put only on those countries creating market problems, rather than on all suppliers.

The underlying premise of the MFA is for countries to negotiate limits acceptable to both the importer and exporter. However, if a mutually acceptable agreement is not reached, a country can unilaterally impose quotas for up to 2 years (under the current arrangement) while an MFA panel investigates the validity of the market disruption claim and ensures that all parties involved have followed MFA rules and procedures.

The current arrangement, MFA IV (1986-91), is an extension of three previous MFA's and two cotton arrangements. Reviewing these arrangements provides a perspective on the evolution of import competition in textiles and clothing, and shows how much world competition has increased.

The first arrangement, the "Short Term Arrangement" (1961-62), was initiated under GATT because of U.S. concerns about growing import competition in U.S. markets for textiles and clothing. The Short Term Arrangement provided for brief quantity restrictions on specific suppliers shown to cause "market disruptions" in national cotton textile and clothing markets.

The succeeding "Long Term Arrangement" (1962-74, including two extensions) broadened the product coverage to include textile and clothing products in which half or more of the product value was from cotton. The Long Term Arrangement standardized rules for imposing quotas.

The quotas could be either unilaterally set for one year, or bilaterally agreed upon with the exporting country. But the quota level could not be set below the import level of the previous period, and had to allow for a minimum of 5-percent growth in annual volume.

Output of synthetic fibers in the newly industrialized countries and Japan, coupled with increasing demand in the developed countries, led to the first MFA. Product coverage in MFA I (1974-77) included all textiles and clothing products made of cotton, wool, or synthetic fibers. MFA I provided for new base levels for quotas, and extended the minimum annual growth rate to not less than 6 percent.

MFA I also broadened the list of specifications for determining "market disruptions," which made it easier to impose quotas. Recognizing the need for special treatment of certain developing countries, MFA I made provisions for small and new suppliers of cotton textile exports.

While product coverage did not change with MFA II (1978-82) and MFA III (1982-86), MFA III introduced procedures to prevent exporting countries from achieving sharp and sustained growth within the quotas set by importing countries. Product coverage was extended in MFA IV to selected vegetable fibers (flax, linen, and ramie) and silk blends.

With this extension, almost all textiles now come under MFA restrictions, with the exception of hair fibers (cashmere, for example) and other minor fibers such as coir, sisal, and jute. Fifty-four developing and developed countries participate in MFA IV.

Major Cotton Importers Are Major Textile Exporters But Smaller Cotton Consumers

Country or region	Cotton imports 1980/81 Actual	Cotton imports 1980/81 Share	Cotton imports 1986/87 Actual	Cotton imports 1986/87 Share	Cotton consumption 1980/81 Actual	Cotton consumption 1980/81 Share	Cotton consumption 1986/87 Actual	Cotton consumption 1986/87 Share	Textile exports 1980 Actual	Textile exports 1980 Share	Textile exports 1986 Actual	Textile exports 1986 Share
	1,000 bales	Percent	1,000 bales	Percent	1,000 bales	Percent	1,000 bales	Percent	$ million	Percent	$ million	Percent
Importers												
European Community	3,926	19	5,934	23	4,689	7	6,168	7	25,311	49	29,222	50
Eastern Europe 1/	2,211	11	2,144	8	2,266	3	2,215	3	1,478	3	1,552	3
Japan	3,205	15	3,688	14	3,293	5	3,445	4	5,102	10	5,464	9
South Korea	1,524	7	1,901	7	1,446	2	1,844	2	2,197	4	3,202	5
Taiwan	964	5	2,357	9	918	1	2,021	2	1,771	3	na	na
Hong Kong	707	3	1,508	6	721	1	1,146	1	909	2	1,402	2
Indonesia	491	2	919	4	477	1	792	1	46	0	306	1
Other Western Europe	408	2	560	2	431	1	477	1	3,330	6	3,898	7
Thailand	404	2	1,275	5	620	1	1,217	1	330	1	515	1
Subtotal		67		79		22		23		78		78
Consumers												
China	3,550	17	16	0	15,101	23	20,200	25	2,901 2/	6	4,279	7
India	0	0	0	0	6,416	10	7,847	10	na	na	1,033 3/	2
Pakistan	0	0	2	0	2,043	3	2,990	4	876	2	1,263	2
Subtotal		17		0		36		38		7		11
Foreign	20,668		25,580		60,203		74,963					
World 4/	20,695		25,583		66,096		82,415		51,968		58,301	

1/ Eastern Europe includes only Czechoslovakia, Hungary, Poland, and Yugoslavia. 2/ 1983 data. 3/ 1985 data.
4/ Total textile exports exclude the Soviet Union and some of Eastern Europe, but China has been added.

Sources: USDA estimates of cotton; August-September marketing years. Textile exports from United Nations Trade System, except for China textile exports that are from China's Customs Statistics, various issues. Textile data are for calendar years. na = not available.

larger shares in world textile markets by producing textiles more cheaply than Western Europe, Japan, and the NIC's.

As textile competition has increased, industries in Western Europe and Japan began concentrating on production of the highest quality textiles to stay competitive. Textile manufacturers in the U.S. consolidated and are attempting to improve production and marketing efficiencies. Both the U.S. and the EC also have used MFA provisions to help stabilize domestic production.

Removing Trade Barriers?

For cotton, extending trade liberalization to all countries raises several issues. Except for the U.S. and Australia, developed countries are relatively minor players in the world cotton market. Developing and centrally planned countries account for 78 percent of world production and 68 percent of exports. Probably the major difficulty would be getting full participation from China and the Soviet Union, who are not yet full GATT members.

The many developing economies that grow cotton are likely to resist removing policies, such as input-price subsidies, which have helped production meet domestic demands for textile development and kept small producers employed in farming. Moreover, GATT negotiators have not specifically discussed eliminating taxes. If subsidies were removed and taxes maintained, developing economies would be severely disadvantaged.

Because many governments maintain relatively heavy taxation or controls on cotton exports, removing these policies would increase prices received by foreign producers, adding incentive for greater production and raising foreign cotton supplies. But prices for foreign textile industries also would rise, discouraging local consumption for textile exports and encouraging cotton exports. As in the past decade, increased foreign production would lead to greater foreign cotton exports.

Trade could be liberalized for textiles and cotton simultaneously. Unrestricted trade in textiles and clothing could increase demand, particularly in the developed countries that maintain high protection levels, since consumer prices would drop. This would encourage expanded production in those countries able to most efficiently produce textile and clothing products and compete in world markets.

The net effect of trade liberalization on the demand for U.S. cotton is uncertain, because it heavily depends on changes in U.S. cotton policies relative to changes in the cotton policies of countries benefiting the most from unrestricted trade in textiles and clothing. *[Carolyn Whitton (202) 786-1826, Kate Buckley (202) 786-1289]*

Soviets Seek To Cut Grain Losses

In mid-March, Soviet leader Mikhail Gorbachev announced several major proposals designed to increase agricultural productivity and reduce losses. The proposals, issued at a special session of the Soviet Central Committee, could bring some changes to Soviet agriculture, but their full implementation remains to be seen.

Some of the proposed reforms, which the Central Committee adopted and are to be worked out in the coming year, include reorganizing the Soviet farm bureaucracy, expanding long-term land leasing by private individuals and organizations, changing procurement prices for seasonal farm products, decentralizing agricultural planning, and increasing investment in the rural infrastructure.

Grain Production Down

Soviet grain production totaled 195 million tons in 1988/89, 8 percent below 1987/88 but above the annual average from 1981/82 through 1985/86.

According to USDA estimates, Soviet grain stocks will fall during 1988/89 for the first time in 7 years. The expected drop is due to the smaller crop and increased feed use. Grain reserves are estimated down by 4 million tons and imports will rise an estimated 5 million tons.

Poor harvesting, storage, processing, and transportation practices cause substantial Soviet grain losses. Now, the Soviets are increasing efforts to cut these losses.

Despite mounting internal and external pressure to change production figures to a clean-weight basis, the USSR reported production in bunkerweight again in 1988. The Soviets say one of the reasons is that they lack the necessary measuring equipment at the farm level to shift to a clean-weight basis.

Bunkerweight includes excess moisture and foreign materials or dockage, such as weeds, soil, and pebbles. USDA breaks out use of grain into six categories: seed, industrial, food, feed, dockage/waste, and stock change. USDA's estimate of dockage and waste includes estimates of excess moisture and trash as well as excess waste and losses during shipping and handling. Grain losses associated with the harvest, imported grain, and grain left on the farm are not accounted for in USDA estimates.

Last May, a Soviet newspaper emphasized that "the time has come for the leaders of the agro-industrial complex to restructure this strange procedure...and to stop deceiving both themselves and us." The paper questioned the accuracy of the published 1987 production figure and cited instances where the difference between bunkerweight and clean weight was as much as 30 percent in some regions.

Reflecting a change in attitude at the USSR Super Ministry for Agriculture (GOSAGROPROM), the Soviets in September 1988 published for the first time a data series indicating excess moisture and dockage in state grain procurements. Furthermore, the ministry announced in August that countrywide production figures would be available on a clean-weight basis this May. Under Gorbachev's proposed reforms, GOSAGROPROM will be abolished, with some of its functions shifted to other agencies.

USDA estimates 1988/89 dockage and waste at 11 percent, or 22 million tons. This compares with 14 percent--30 million tons--for the large 1987 crop, which was harvested under unusually wet conditions. The 1988 estimate

reflects reduced grain output, greater care in handling, and dry harvesting conditions last season.

According to the noted Soviet economist Nikolai Shmelev, "every year [the USSR] loses as much as 25 percent of its grain" due to poor harvesting practices, bad processing, storage, and transport. Total grain losses in the Ukraine are placed at about 20 percent, and in Byelorussia at 30 percent.

An official with GOSAGROPROM reported that losses have averaged 7-10 percent of bunkerweight in recent years, and the Agriculture Ministry indicated excess moisture and dockage (excluding waste) in just state procurements averaged 3.8 percent during 1980-87.

Inadequate Drying and Harvesting Equipment a Problem

A lack of drying facilities partly accounts for the excessive moisture in Soviet grain crops. Even in dry weather, the short growing season in the Siberian regions often does not permit plants to dry out before harvest. Drying facilities can handle only 20 percent of the spring wheat in the Kurgan region, 8.6 percent in Altai Krai, 4.5 percent in north Kazakhstan, 1.8 percent in Kustanai, 1.2 percent in Kokchetav, and 0.03 percent in Turgai.

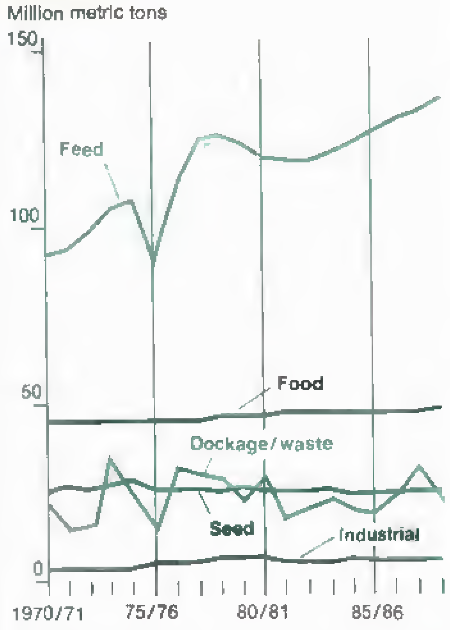
Even before the grain crop is harvested and accounted for in bunkerweight, substantial losses occur in the field. According to one authority, each year 60-80 million hectares of grain are not harvested quickly enough, resulting in losses of 17-20 million tons valued at 2.5 billion rubles (1 ruble = $1.67).

Another authority notes that if the harvest countrywide could be shortened 7-10 days, yields could be boosted enough to produce an additional 30-40 million tons annually. The Ukraine reportedly loses 3.5-6.0 million tons each year because of inefficient harvesting operations that often take 25-30 days.

Soviet Feed Grain Use Reaches a Record

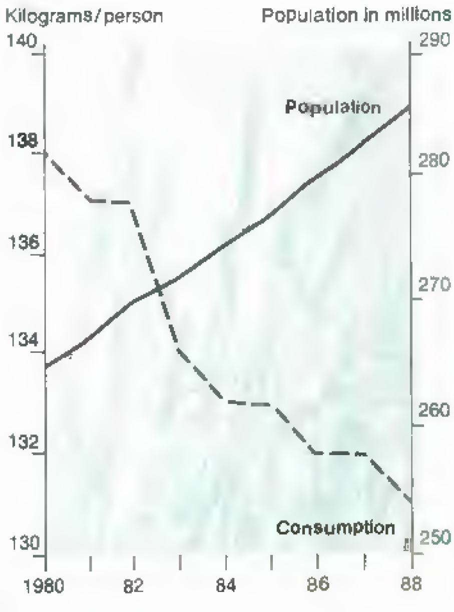
Soviet use of grain for feed is estimated by USDA at a record 135 million tons in 1988/89, up 13 percent from 1980/81.

USSR Feed Grain Use Climbs to Record High



1988/89 projected.

Rising Soviet Population Offsets Drop in Food Grain Use



Flour equivalent.

The continued growth reflects the desire to increase livestock output by improving feed rations.

The Soviets are trying to boost yields per animal, while deemphasizing growth in animal numbers. However, improper balancing of grain with other ingredients in feed rations has reportedly led to overfeeding of grains. The Soviets acknowledge the need to use more high-quality forage and high-protein feeds.

The share of grain in mixed feeds produced by the state was reportedly 68.4 percent in 1988, up 31 percent from 1968. The Soviets compare this with the grain share in U.S. and West European mixed feeds, which is around 45 percent.

Part of the discrepancy is due to the underutilization of oilseed meal, which in the USSR comprises only 9 percent of mixed feeds. The share of oilmeal is over 25 percent in the U.S. and Western Europe.

Soviet specialists report that at least 50-60 million tons of all grain used for feed in the socialized sector is fed nearly straight or only coarsely ground. They estimate that if properly balanced with oilmeals and other additives, grain use could be reduced 16-18 million tons a year.

According to Soviet sources, improving mixed-feed rations alone could raise feeding efficiencies 10-15 percent and increase meat output by at least 2 million tons annually. Furthermore, improved feed rations could free a significant amount of high-quality wheat for human consumption. USDA estimates feed use of wheat in 1988/89 at 42 million tons, including a Soviet estimate of around 8-10 million tons of high-quality wheat.

More Efficient Use Would Cut Losses

More efficient use of state-procured grain could reportedly reduce losses incurred during shipping, and lessen the burden on the rural infrastructure. Around 64 million tons (about 85 percent of the state's procurements in 1987), were delivered back to farms as ground grain or mixed feed.

Pravda reported that losses from handling imported grain from January 1987 through September 1988 amounted to over 30 million rubles (277,600 tons). Moreover, *Pravda* also reported that losses of imported grain during shipment by train alone during January 1987-August 1988 totaled 3 million rubles (about 30,000 tons), likely a gross understatement.

Industrial and Food Use Stable

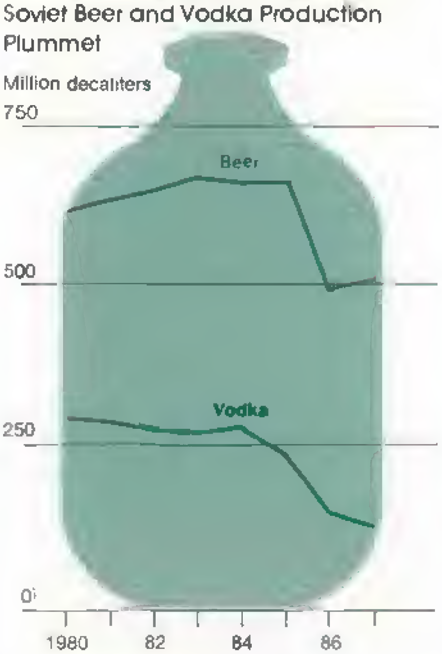
USDA estimates that the USSR's 1988/89 industrial use of grain will be unchanged from 1987/88's 5 million tons. Although production of alcohol from grain may decrease, the use of grain in nonalcoholic beverages likely will increase. Output of vodka in 1987 fell another 16 percent to its lowest level in 31 years, reflecting the Gorbachev strategy aimed at curbing alcohol consumption.

Beer production in 1987 (latest year available), although up slightly from the year before, was still 22 percent below the 1981-85 annual average of 650 million decaliters. But grain accounted for the largest share--26 percent--of the ingredients used in nonalcoholic beverages in 1987.

Seed use of grains in 1988/89 is expected to absorb an estimated 13 percent--25 million tons--of total Soviet grain production. Seeds represent about 13 percent of Soviet wheat output, compared to 4 percent in the U.S. in 1986/87.

The recommended seeding rate for winter wheat in the USSR is about 240 kilograms per hectare, three times more than in the U.S. (around 75 kilograms/hectare). Recommended Soviet seeding rates for spring wheat, barley, oats, and rye are at least two times greater than in the U.S. These differences are in part due to different climatic conditions.

Soviet Beer and Vodka Production Plummet



1 decaliter=2.64 U.S. gallons.

Reduced per capita food consumption of grain in the USSR still largely offsets population growth, keeping total food use of grain fairly stable. While the population increased 6 percent from 1980 to 1987, per capita consumption of grain (in a flour equivalent) declined 4 percent. USDA estimates 1988/89 food use of all grains at 48 million tons, and food use of wheat at 37 million tons. *[Christian J. Foster (202) 786-1620]*

Europe 1992: What's Ahead For Agriculture?

Under a plan that is often called "Europe 1992," the European Community (EC) intends to fully integrate its internal market by the end of 1992. Europe 1992 could make the EC more competitive in world markets and more powerful in world affairs.

While it is too early to say for sure, integration may induce changes in EC agriculture that could benefit U.S. agricultural exporters. Removing EC internal barriers to the movement of goods, services, capital, and people would create a single market of 320 million people, with domestic production (gross domestic product, GDP) roughly equal to that of the U.S.

The unified market would allow greater economic efficiency and welfare through economies of scale. Economies of scale occur when the costs per unit of output fall as the size of the producing unit grows. The principal economic benefits from a more competitive EC economy, as estimated in an EC study, are:

- growth in GDP of 4.5 percent above previously projected levels;
- consumer prices about 6 percent below current expectations; and
- creation of 1.8 million jobs.

The U.S. Government has supported in principle the 1992 initiative, while at the same time making it clear that U.S. interests will be defended.

Agricultural Consequences Appear Secondary

Although the impacts on agriculture appear secondary relative to the nonagricultural sector, Europe 1992 may have important implications for EC agriculture and could raise several issues in U.S./EC farm trade relations.

Elimination of national borders in the EC means harmonizing standards and regulations affecting plant and animal health, food labeling, packaging, and testing. This harmonization process may improve exporters' access to the EC market.

Once an imported product meets minimum EC standards, it would theoretically have access to all member countries without having to adhere to different rules across internal EC borders. However, the EC may not accept standards that are identical to those in the U.S., so U.S. exporters would still have to meet a different standard to sell in the EC.

The 1992 program may also require removing agricultural border taxes and subsidies created by the agrimonetary system of the of EC's Common Agricultural Policy (CAP). Elimination of these border measures could provide EC officials an opportunity to lower guaranteed farm support prices, although there will be significant opposition from those member states where farmers are less efficient producers.

1992 Cuts Barriers, Harmonizes Standards

The EC Commission estimates that nontariff barriers cost the EC food industry $600-$1,200 million annually. Most of the cost results from national labeling, packaging, and ingredient requirements that prevent internal EC trade. The barriers have increased over the years.

To dissolve the borders between EC countries by the end of 1992, there must be community-wide agreement on at least minimum standards and regulations. The EC is setting such standards,

Annual Average Changes in EC Agricultural Support Prices

	Common prices (ECU's)	National currencies (from Green Rates)
	Percent	
1980/81	4.8	5.7
1981/82	9.2	10.9
1982/83	10.4	12.2
1983/84	4.2	6.9
1984/85	-0.5	3.3
1985/86	0.1	1.8
1986/87	-0.3	2.2
1987/88	-0.2	0.2

Source: The Agricultural Situation in the Community, various issues, from the EC Commission.

and has agreed on the principle of mutual recognition of each member's regulations.

While there is agreement on the concept of mutual recognition, the question remains about how restrictive the minimum standards will be and if U.S. standards would be accepted on an equivalency basis. The EC's third country red meat directive, which jeopardized U.S. meat exports to the EC, leaves room for doubt on the equivalency issue.

Of the 279 EC proposals required to complete the internal market integration, about 70 are related to agriculture. Most concern food processing standards and plant and animal health. Some of the proposals already have been adopted and, except for the hormone directive, those adopted do not appear to be a major problem for U.S. farm exporters.

The more difficult animal and plant health directives have not been drafted, however. Harmonizing food and drug standards could result in the creation of an EC equivalent to the U.S. Food and Drug Administration.

Border Taxes and Subsidies Could Be Eliminated

The EC has border taxes and subsidies among its member states for most agricultural products. These taxes and subsidies, called monetary compensatory amounts (MCA's), prevent trade distortions that would otherwise result from price differences between countries arising from agricultural exchange rates--the so-called "green rates"--that differ from official exchange rates.

The price differences between countries that are caused by green rates are offset by MCA's. If at the end of 1992 all borders are more open, then MCA's must be eliminated because they are collected at the borders between member states.

Reform of the agrimonetary system, through elimination of MCA's, could slow growth in EC agricultural production because it might result in a reform of the CAP system of guaranteed pricing. The agrimonetary system has been responsible for an upward bias in farm prices when CAP common prices, denominated in European Currency Units (ECU's), are converted into national prices.

The agrimonetary system has increased the cost of the CAP and subverts the intent of a common agricultural market. Prices are not common and are maintained to some degree by individual countries.

Reform-minded EC officials have been concerned about the upward bias in EC farm prices for 20 years. Eliminating MCA's provides officials an opportunity to propose changes that would reduce the upward bias. However, EC agricultural ministers likely will insist on a neutral price effect after elimination of MCA's.

1992 Is Well Underway

The EC's internal harmonization program has generated considerable EC and international debate. It already has affected some EC economic sectors and spurred an ongoing series of corporate mergers. EC officials and most member-state leaders agree that 1992 represents a necessary step to revitalize the EC economy and strengthen its position in world markets.

The complexities have led most EC analysts to agree that the 1992 program will not be completed by the end of 1992. Nevertheless, the harmonization process has already begun and is being monitored closely by the appropriate U.S. agencies and departments. The U.S. private sector also has been involved in the analysis of the EC's 1992 proposals.

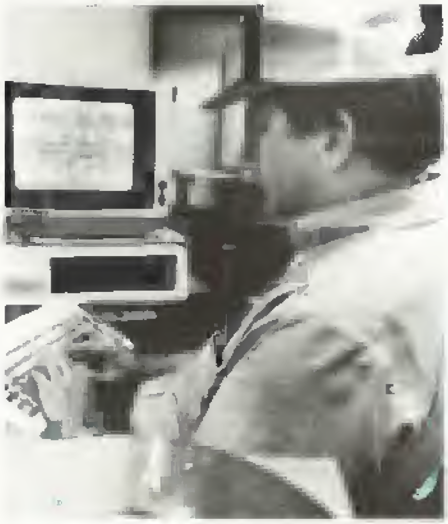
Integration of the EC internal market could be a stimulus for significant changes in the CAP, with potentially favorable results for U.S. farmers if the political will exists in the EC to carry out the changes. Yet it is premature to predict whether the results for EC agriculture and U.S. agricultural exports will be positive or negative. *[David Kelch (202) 786-1616]*

Upcoming Releases from the Agricultural Statistics Board

The following list gives the release dates of the major Agricultural Statistics Board reports that will be issued by the time the May *Agricultural Outlook* comes off press.

April

3	Egg Products
4	Poultry Slaughter
6	Dairy Products
	Celery
7	Meat Animals-Prod., Disp., and Income
10	Vegetables
11	Crop Production
13	Turkey Hatchery
14	Potato Stocks
	Milk Production
17	Floriculture Crops
20	Catfish
21	Cattle on Feed
	Livestock Slaughter
	Cold Storage
25	Eggs, Chickens, & Turkeys
27	Peanut Stocks & Processing
28	Poulry-Production & Value
	Agricultural Prices



Farm Finance

Mixed Income Signals Reflect Post-Drought Adjustments

Farmers' net cash income in 1989 is expected to be $48-$52 billion. This estimate, unchanged from USDA's initial forecast last December, is 12-16 percent below the $58-billion record of 1988. The decline comes primarily from higher expenses and lower Government payments.

Government direct payments to farmers are projected to fall as much as $3 billion this year. Deficiency payments will be lower, partly because relatively high crop prices are expected through 1989. Also, a large portion of the 1989 corn and sorghum deficiency payments are based on the 1988 crop.

Seed, fertilizer, fuel, and pesticide expenses will be about $3 billion higher than last year, consistent with a more than 20-million-acre increase in plantings.

Many of the changes stem from last year's severe drought. Largely because of the drought, stocks of corn, soybeans, and to a lesser extent wheat, will be 4 billion bushels lower this year than last.

Ending stocks of wheat and soybeans will be especially tight, approaching levels last recorded in the mid-1970's. Assuming domestic and foreign use will almost match production, stocks will increase modestly during 1989.

This year will be a growth year for agriculture, assuming normal weather for the growing season, and higher expenses will be incurred for increased planting and input use. Even so, the benefits of increased production will not be fully realized until 1990.

Over half of this fall's larger crop (corn and soybeans) will not be sold by farmers until the winter and spring of 1990. Consequently, despite increased production, 1989 crop receipts likely will not surpass 1988's $72 billion.

Income Outlook: More Production But Less Cash

	1987	1988	1989
		$ billion	
Receipts	138	152	151-155
Direct payments	17	14	9-11
Cash expense	103	113	118-121
Inventory change	-1	-8	7-9
Net cash income	57	58	48-52
Net farm income	46	40	44-48

Record-High Livestock Receipts

	1987	1988	1989
		$ billion	
Cattle/ calves	34	38	38
Dairy	18	18	18
Poultry	12	13	14
Hogs	10	9	10
Total 1/	76	80	81-83

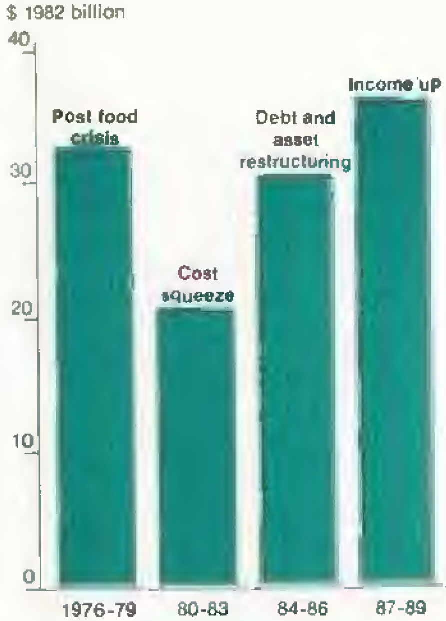
1/ Includes receipts for other livestock, such as sheep and fish.

Net Farm Income Rebounds

Measured in current dollars, 1989 net farm income could match or slightly exceed the 1987 record. Assuming crop yields return to normal, net farm income is expected to climb 15 percent from last year to $44-$48 billion.

Net farm income measures the value of current production and includes changes in inventory. The inventory adjustment excludes receipts from crops harvested in earlier years and includes the value of crops grown this year but not sold.

1980's Ending with Higher Net Farm Income



Due to last year's drop in crop production, 1988 net farm income fell 13 percent from 1987. Net farm income in 1989, measured in inflation-adjusted dollars, probably also will be below 1987. Yet inflation-adjusted net farm income will be substantially higher in 1989 than in the early to mid-1980's.

Expenses Up 5-7 Percent

The anticipated $6- to $8-billion increase in 1989 production expenses reflects higher input prices and more input purchases as planted acres increase and yields recover from the 1988 drought. Expense items expected to increase at least 15 percent include seed, fertilizer, pesticides, machine hire and custom

Hogs: A Soft Spot In the Recovery

In spite of last year's drought, U.S. agriculture has continued to recover from the financial crisis of the early and mid-1980's. Farm receipts, cash income, and land values rose during 1987 and 1988, and are projected to remain strong during 1989. Commodity price rises during the last 18 months have benefited cattle, poultry, and cash grain producers. One notable exception to the recent improvement has been hogs.

Cost/Price Squeeze Means Loan Repayment Problems for Hog Farmers

Commercial farmers with loan repayment problems		1985	1986	1987	1988
		Percent			
Hog farmers:	Iowa	21	14	14	na
	U.S.	23	12	10	na
All farmers:	Iowa	19	21	11	na
	U.S.	16	16	10	na
Hog-corn price ratio		18	28	34	19
		Dollars			
Hog price per cwt		44	50	51	43
Net returns per finished hog 1/		-2	22	25	4

na = not available. 1/ Receipts less cash expenses and replacement for 1,600-head farrow-to-finish operation, 235-pound average weight per hog.

Commercial Hog Producers Under More Stress

The proportion of commercial farmers (annual sales greater than $40,000) with loan default problems fell from 16 percent in 1986 to 10 percent in 1987. But commercial hog producers showed relatively less improvement, with 12 percent having default problems in 1986 and 10 percent in 1987. In 1988 and early 1989, default problems among U.S. hog producers may have returned to around 11-12 percent.

Default is defined as insufficient cash flow to service all principal and interest payments, or inadequate net worth that severely limits loan repayment prospects. Hog producer default problems are centered in Iowa, the leading hog State. Thirty-five to 40 percent of the nation's nearly 4,000 distressed commercial hog farmers are in Iowa.

While default problems nationwide fell by about one-third in 1987, Iowa hog producers showed no improvement, remaining at 14 percent in 1986 and 1987.

Midwest hog producers also were affected by last year's crop shortfall. USDA enterprise budgets indicate that higher prices for corn and soybean meal raised hog producers' feed costs 45 percent during 1988 at a time when pork production was 9 percent above a year earlier.

Yet the financial health of commercial hog producers remains much improved over 1985, when about 2,500 hog farmers in Iowa and 12,000 nationwide faced loan repayment problems. Hog prices averaged about $50-$51 per cwt during 1986 and 1987, the best consecutive hog-price years ever.

Record corn yields and extensive use of payment-in-kind certificates (which increased the liquidity of grain markets) lowered feed costs coincidentally as hog prices rose. The result was a near doubling of the hog-corn price ratio (i.e., bushels of corn equal in value to 100 pounds of live hog weight), which rose from 18 to 34 between 1985 and 1987.

But hog enterprise budgets suggest that economic problems have led to losses since the fall of 1988. USDA estimates that net receipts (less cash expenses and capital replacement) in large farrow-finish operations declined from about $20 per cwt during mid-1987 to a loss of $7 per cwt during the fall of 1988. Instead of earning nearly $50 of profit per hog, as in July 1987, many producers recently experienced losses of $18 per hog.

Receipts for all commodities are projected $15 billion higher this year than in 1987. Growth in receipts between 1987 and 1989 has been shared, to varying degrees, by all major crop and livestock enterprises except hog producers. Even though receipts will be up from last year, they are expected to be $500 million less than 2 years ago. *[Gregory Hanson and Hossein Parandvash (202) 786-1807]*

work, marketing, storage, and transportation costs. Overall, production expenses are projected to rise 5-7 percent.

Record Commodity Receipts Likely

Total crop receipts in calendar 1989 are expected to remain near $72 billion, and livestock cash receipts should climb slightly to a record $81-$83 billion. So total commodity receipts could eclipse the 1988 record by $1-2 billion.

Corn receipts are expected to rise 5 percent this year. Wheat, barley, oat, and sorghum receipts are projected to gain 20 percent, and tobacco receipts 15 percent.

The return to more normal production of food and feed grains likely will lower prices for these crops after the harvest. Soybean receipts are forecast to decline 7-10 percent while cotton receipts could fall 15-20 percent, after rising 25-35 percent in 1988. Total cash receipts for all fruits and tree nuts could decline 5 percent.

Cash receipts for red meat should remain near last year's $48 billion. Some decline in production should be offset by a slight price increase.

Hog receipts are expected to rebound by $500 million to almost $10 billion in 1989. Hog price forecasts are above 1988 for all but the first quarter, so receipts are forecast to be well above 1988 for the rest of the year.

Increased poultry production will boost broiler receipts 5 percent in 1989, and turkey and egg receipts 10-15 percent. Cash receipts for all poultry could approach $14 billion, with broilers accounting for about $8 billion. *[G. Andrew Bernat and Diane Bertelsen (202) 786-1808]*

Drought Assistance Appears Well Targeted

Federal disaster assistance may be less than anticipated last fall, because crop losses were smaller than expected. Targeting payments to the most affected regions helped stabilize the farm economy during last year's drought.

Also, qualification for drought assistance was based on the whole-farm average yield for each crop, rather than on a field-by-field basis. The "averaging-up" of yields, where good fields offset poorer fields, excluded some farmers from qualifying in areas with scattered rainfall.

However, the combination of drought assistance and federally subsidized crop insurance has permitted thousands of farmers in hard-hit States to survive last year's bad weather with less financial suffering than had been anticipated.

When it became clear that the U.S. was experiencing its most severe drought in 50 years, Congress initiated drought legislation. The Disaster Assistance Act of 1988 was signed into law August 11th. By then, it was evident that the drought had reduced the hard red spring wheat crop by as much as 50 percent from 1987 (harvest generally was finished during July and August).

Dry conditions accelerated the start of the corn harvest into late September in many Midwest States. But passage of drought legislation the previous month permitted county USDA Agricultural Stabilization and Conservation offices to begin processing farmers' crop-loss applications before the end of the fall harvest season.

Lion's Share of Drought Payments Go to the Northern Plains and Corn Belt 1/

	Drought assistance	Federal crop insurance 2/	Total
		$ million	
North Dakota	365	187	552
Illinois	313	97	410
Minnesota	262	60	322
Iowa	252	128	380
Montana	170	95	265
South Dakota	177	49	226
Wisconsin	220	7	227
Texas	138	28	166
U.S.	2,714	983	3,697

Note: States with more than $100 million in drought payments.

1/ As of late February. Additional payments continue to be disbursed.
2/ Federal crop insurance is funded by both farmer premiums and Government subsidies.

A full assessment of the impact of Federal drought assistance and insurance cannot be completed yet because payments and indemnities are still being disbursed. But an initial assessment suggests that Federal income transfers had substantial stabilizing effects.

More than 80 percent of commercial farms (annual sales of $40,000 or more) in Montana and the Dakotas were in drought-stricken counties. Farmers in these States have received nearly one-third of the drought payments disbursed so far.

The most drought-damaged State was North Dakota. Spring wheat production fell nearly two-thirds, and local soybean production (less than 1 percent of the U.S. crop) could not compensate. However, the $552 million in drought assistance and insurance payments disbursed by late February were equivalent to more than 50 percent of the State's wheat and feed grains receipts in 1987.

Farmers in the four major corn-producing States--Illinois, Iowa, Minnesota, and Wisconsin--received more than $1.3 billion in combined drought payments, 36 percent of all disbursements. These States and Indiana were the second hardest-hit drought region, with 73 percent of their commercial corn farmers and 88 percent of their dairy farms in counties experiencing severe drought conditions. The drought payments and continued soybean profitability will assist most farmers with low corn and wheat yields in these States.

In both the Northern Plains and Corn Belt, the severe-drought counties had a larger-than-proportional share of financially vulnerable farms. A partial explanation for the "loading up" of stress in the drought counties is that previous droughts also struck areas affected by the 1988 drought. For example, parts of eastern Iowa experienced droughts in 1983, 1987, and 1988.

Enactment of the Disaster Assistance Act probably helped stabilize land values in the Midwest. Surveys by the Farm Credit Banks of St. Paul indicate that land prices did not decline in Michigan, North Dakota, or Wisconsin during June-November 1988. Other surveys indicate that land prices rose in the Corn Belt last year. Real estate is the main source of farmers' loan collateral.

While drought assistance has helped stabilize the agricultural economy, the USDA estimates that 10,000 to 15,000 commercial farms faced loan repayment problems due to crop losses. These stressed farmers represent 1.5-2.5 percent of all commercial farms.

Although Federal drought assistance likely will be less than anticipated last fall, targeting payments to the most affected regions helped stabilize the farm economy during the worst drought since 1936. This is especially so in the regions that bore the brunt of the hot, dry weather--the Northern Plains and Western Corn Belt. *[Gregory Hanson (202) 786-1807]*

Water Restrictions for California Vegetables

California vegetable growers are heading into their third drier-than-normal year, and are concerned about the adequacy of irrigation water. Surface water allocations in some districts are already restricted.

Though groundwater supplies are near normal, new well drilling, and concerns about overdraft and quality, have led to doubts about whether groundwater can compensate for low surface water supplies. California vegetable production, heavily concentrated in the San Joaquin Valley, depends on purchased irrigation water during most years.

The shortage has forced officials to cut water allocations to California farmers by as much as 50 percent. But because vegetables are high-value crops, growers will keep water flowing to them at the expense of other crops. Independent of the water issue, growers may have shifted more acreage into processed tomato production, and out of cotton and rice. So California vegetable production is actually expected to rise about 2 to 3 percent this year.

The U.S. relies heavily on California for fresh and processing vegetables, including potatoes and dry edible beans. California's 1988 cash receipts for vegetables were an estimated $3 billion. California accounted for over half the U.S. vegetable crop last year, and leads the nation in output of asparagus, broccoli, carrots, cauliflower, celery, honeydew melons, lettuce, onions, and processing tomatoes.

According to the 1982 Census of Agriculture, California accounted for 27 percent of all U.S. vegetable acreage, and all of California's vegetable crops are irrigated. The abundance of vegetables and other crops is attributable to California's favorable climate.

Water Supply Is Crucial

California must have a reliable water supply to maintain its share of vegetable production. According to the State's Department of Water Resources (DWR), California's 1,313 State and Federal reservoirs can hold nearly 43 million acre-feet of water. Groundwater supplies are estimated at 850 million acre-feet, but most of this is not available for use.

Reservoirs and groundwater supplies receive water from rainfall and snowpack. Snowpacks in the nearby mountain regions provide water after the rainy season, which spans November to March. The runoff from melting snow replenishes water supplies and recharges groundwater aquifers for the remainder of the growing season.

Agriculture accounts for about 85 percent of the State's water use. More than 16 million acre-feet of groundwater are pumped annually for agricultural use. However, according to the DWR, in most years groundwater pumping exceeds recharge by about 2 million acre-feet.

Water Outlook Points to Continued Dryness

As the rainy season draws to a close, the 1989 water outlook for California vegetable growers is not encouraging. Moreover, the previous 2 years were critically dry, according to the Sacramento River Index, due to low rainfall and snowpack.

The Sacramento River Index is an important measure of water flow; it includes the Sacramento, Feather, Yuba, and American Rivers. The index was well below the normal level of 19 million acre-feet in both 1987 and 1988. When the index is about half the normal level, as in the past 2 years, the year is classified as "critically dry."

As of March 14, the Sacramento River Index stood at 13.4 million acre-feet. This level places California in the "dry" category for 1989.

Central Valley Project Manages Water in Key Areas

Much of California's vegetable land is in the Central Valley, which in an average year receives about 15 inches of rainfall. Rainfall for the State ranges from over 100 inches per year in the northern mountains to just several inches in the desert southwest.

Through February, the Central Valley had received only 65-70 percent of normal rainfall, which placed additional demand on already depleted reservoirs. However, near normal precipitation in March has greatly improved the situation.

Water Transfers During Droughts

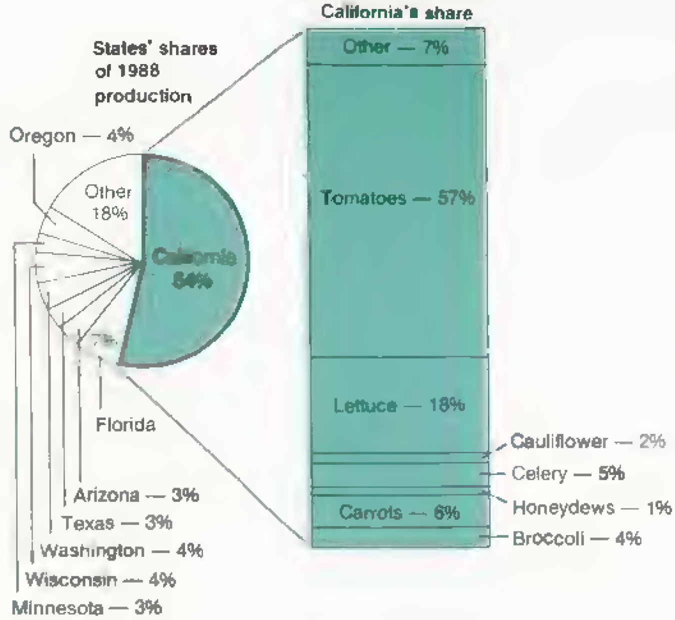
During years of low supply, water in California can be transferred among water projects, districts, and individuals. A framework to promote transfers has been developed at the State and Federal levels that is flexible enough to meet most needs, while addressing economic and environmental concerns. Much of the groundwork for water transfers was put in place during the severe 1976/77 drought.

The first major water exchange in 1976/77 was between urban and agricultural users. A diversion of 10,500 acre-feet from the Colorado River for urban use allowed an equal amount of State project water to go to agricultural uses.

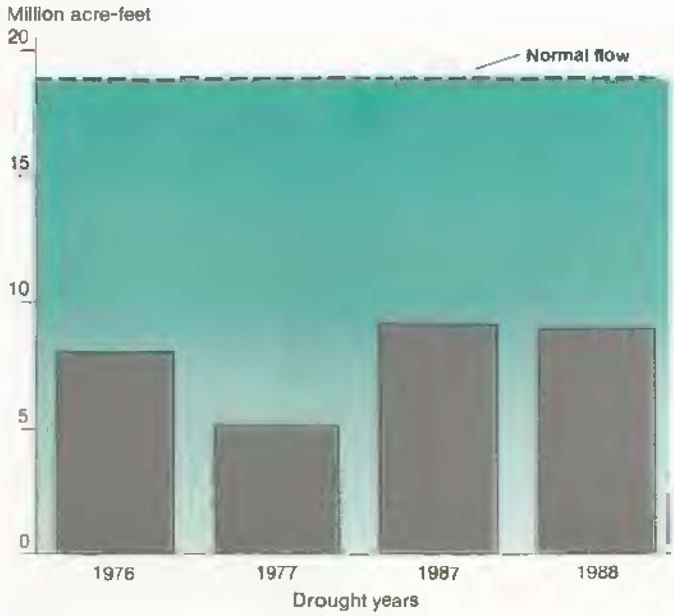
Further exchanges were possible through 1977 because of favorable storage in the lower Colorado River reservoirs. Water was piped across the Richmond-San Rafael Bridge to supply the city of Marin with 10,800 acre-feet through a cooperative arrangement with the city and county of San Francisco, the city of Hayward, and the East Bay Municipal Utility District.

In 1988, the number of transfers was higher than during 1976/77 even though amounts were smaller. The framework is in place and can operate smoothly should the need arise in 1989 or later. The transfer system works because of the vast interconnections between the aqueducts and the water distribution facilities in California.

California Produces Over Half of U.S. Vegetable Crop



Drought Lowers Sacramento River Index to Less Than Half of Normal



The Central Valley Project (CVP) of the U.S. Bureau of Reclamation follows established procedures to determine annual water deliveries. From October to January, CVP delivery plans are based on current reservoir storage and on various runoff scenarios for the remainder of the water year. By mid-January, half the rainy season is past, and more reliable assessments of the year's available supply can be made. Commitments are made to CVP water customers in February.

This February, snowpack in the Sierra Nevada was 80 percent of normal, and reservoir storage was about half of average. Based on these conditions, Federal water district officials restricted 1989 water use by 25 to 50 percent. The first cuts were in agricultural and municipal uses.

Since the situation has improved, officials are reducing the extent of agricultural restrictions for the Central Valley Project. However, water districts on the western side of the Sierra Nevada Mountains are still severely deficient.

The Central Valley Project manages the water supply for the San Joaquin Valley. On September 30, 1988, the major reservoirs held only 4.5 million acre-feet, or 54 percent of average. This was about 2 million acre-feet more than at the end of 1977--the driest year on record.

Additional storage of 989,000 acre-feet in the New Melones Reservoir helped keep storage from slipping nearer the record low. As of mid-March, several reservoirs were at capacity.

The combination of below-normal storage (carried over from 1987), runoff at 35 percent of normal, and heightened demand for irrigation water to make up for lack of rainfall, have caused many growers to use more groundwater.

Groundwater use jumped nearly 100 percent in 1988. About 2.5 to 3 million acre-feet of additional groundwater were pumped to make up for surface water shortages. However, groundwater costs more to use and raises questions about water quality.

Impact on Vegetables Can Be Significant

The San Joaquin Valley accounts for about 42 percent of the State's harvested vegetable acreage. Vegetables grown in

Importance of California's Vegetable Crops

	United States	California as percent of U.S.	Major California county	County share of State
	Acres harvested	Percent		Percent
Artichokes	11,204	100	Monterey	79
Asparagus	97,202	36	San Joaquin	55
Lima beans	56,113	40	Stanislaus	32
Snap beans	277,538	4	Stanislaus	23
Broccoli	80,277	82	Monterey	51
Brussels sprouts	6,138	97	Monterey	51
Cabbage	90,360	8	Ventura	42
Cantaloupes	113,981	52	Fresno	42
Carrots	83,601	39	Kern	36
Cauliflower	50,168	67	Monterey	52
Celery	39,455	59	Ventura	43
Sweet corn	642,168	2	Riverside	29
Cucumbers	113,849	6	San Joaquin	17
Garlic	15,379	87	Fresno	42
Lettuce	229,887	71	Monterey	42
Onions	117,453	24	Kern	31
Green peas	281,350	3	Stanislaus	28
Peppers	70,999	18	San Joaquin	18
Spinach	34,915	24	Ventura	34
Tomatoes	403,469	63	Yolo	22
Watermelons	184,043	10	Imperial	17

Source: 1982 Census of Agriculture, U.S. Department of Commerce.

Storage in Selected Reservoirs for the San Joaquin Valley

Reservoirs 1/	Historical average	Storage on September 30: 1976	1977	1986	1987	1988
	1,000 acre-feet					
New Hogan	143	70	11	136	59	16
Donnells	32	5	11	49	8	10
Beardsley	74	2	4	77	28	23
New Melones	1,683	4 2/	3 2/	1,948	1,443	989
Tullock	42	8	11	63	60	36
Don Pedro	1,228	687	307	1,672	934	930
McClure	603	244	95	696	314	148
Millerton	212	224	197	159	168	146
Oroville 3/	2,428	1,828	915	2,661	1,978	1,529
Pine Flat	455	208	68	561	126	63
Isabella	217	70	36	327	151	75
Terminus	17	17	10	12	5	6
Success	15	7	5	21	5	7
San Luis 4/	1,166	678	274	1,481	688	492
Total	8,315	4,052	1,947	9,863	5,967	4,470

1/ Some water comes from the northern region of the Central Valley Project. 2/ Levels for the original Melones. 3/ Supply is shared with other areas. 4/ Includes State Water Project storage.

Source: The Resources Agency, California Department of Water Resources.

this area important for U.S. supplies include: asparagus, lima beans, cantaloupes, carrots, garlic, horseradish, leeks, mixed melons, onions, peppers, and tomatoes. Because the San Joaquin Valley receives 80 percent of its water from surface sources, restrictions in water use can cause major losses in output and revenues.

The San Joaquin Valley, which makes up most of the Central Valley, produces the bulk of vegetables shipped from California during the spring and summer. Water restrictions for the fall in southern areas and the Imperial Valley are unlikely, as most of their water comes from the Colorado River, which has a near-normal flow.

Since Central California produces most U.S. spring and early summer vegetables, a decline in output likely would put upward pressure on both grower and retail prices for fresh vegetables. The impact would be most severe on asparagus, carrots, and cantaloupes because California supplies nearly all the output for the spring market.

Because of tight world supplies of processing tomatoes in 1988/89, California growers expanded acreage for the 1989/90 season. California production could total between 7 and 7.5 million tons. Even though not all of the expansion is in the San Joaquin Valley, the valley still accounts for about 50 percent of California's acreage.

Any loss in yields or solid content of processing tomatoes would have a major impact on availability of concentrates and on prices. Tomatoes for processing account for 12 percent of California's total vegetable cash receipts. California's tomato pack is important for international markets because the U.S. is a major importer of most tomato products.

Because vegetables are high-value crops, growers likely will be able to pay more for water in 1989 to minimize losses. During the 1976/77 California drought, vegetable production did not drop despite 60-percent water restrictions in the Central Valley. Instead, growers reduced wheat, rice, and sugarbeets, and increased cotton and tomatoes.

With improved irrigation technology, increased groundwater pumping, and increased water storage and transfer capacities, vegetable production is actually expected to increase in 1989. Moreover, processing tomato acreage, which is over half of California's vegetable acreage, is expected to be record high this year. [*The author would like to thank the California Department of Water Resources for their assistance in preparing this article. Shannon Hamm (202) 786-1886*]

Lessons from Kesterson

Until early 1985, agricultural water supplied to the San Joaquin Valley was draining nearly unnoticed into the Kesterson National Wildlife Refuge, near Los Banos, California. The wastewater carried excessive levels of selenium leached from the soil, which had already been detected in 1981 by the Bureau of Reclamation.

The selenium has been blamed for an abnormal amount of deformity and death among migratory birds. After helping the crops grow, water would drain into the refuge. Wastewater drainage was banned in Kesterson, placing the delivery of Federal water to agricultural users in doubt.

Kesterson was part of the Pacific Flyway, which runs between Canada and Mexico and was established by the 1918 Migratory Bird Treaty Act. The treaty holds the U.S. responsible for protecting migratory birds and providing a suitable habitat; it assigns criminal penalties to violators of the law. So the Department of the Interior closed Kesterson to avoid the penalties. The birds are being scared off Kesterson to other wildlife refuges.

The problem was in the high concentration of selenium. Selenium, a trace element, occurs naturally in soils, and in minute quantities is beneficial to animals. However, selenium is fat soluble and its concentration builds in the food chain very rapidly. High concentrations are toxic.

The reason that most selenium controversies arise in the West, according to Interior Department officials, is that western soils are alkaline, not acidic as in the East, and cannot bind the selenium to the soil. So the selenium is leached from the soil into water.

Selenium poisoning from agricultural wastewater has been blamed for wildlife deaths and deformities in at least nine other western areas since the Kesterson closing. The Interior Department has confirmed only the Kesterson incident, but five of the other areas are also national wildlife refuges.

There is a growing need to manage agricultural wastewater in western areas. Short-term solutions for Kesterson have been to construct small on-farm holding ponds to contain wastewater.

The long-term solutions, possibly involving a wastewater recycling plant, will take time and money. The question of who should pay for such a system, when it is difficult to determine who was at fault in the first place, complicates the issue and slows the program.

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Statistical Indicators

Summary Data

Table 1.—Key Statistical Indicators of the Food & Fiber Sector

	1988				1989				
	II	III	IV	Annual	I F	II F	III F	IV F	Annual F
Prices received by farmers (1977=100)	133	142	144	138	143	141	137	--	140
Livestock & products	148	151	152	150	152	153	151	--	153
Crops	117	133	135	125	134	129	123	--	125
Prices paid by farmers, (1977=100)									
Production items	155	159	162	157	--	--	--	--	168
Commodities & services, interest, taxes, & wages	168	172	173	170	--	--	--	--	180
Cash receipts ($ bil.) 1/	157	170	137	152	153	155	--	--	151-155
Livestock ($ bil.)	77	85	81	80	81	80	--	--	81-83
Crops ($ bil.)	80	85	56	72	72	75	--	--	69-72
Market basket (1982-84=100)									
Retail cost	115	118	118	116	--	--	--	--	--
Farm value	99	104	100	100	--	--	--	--	--
Spread	123	126	128	124	--	--	--	--	--
Farm value/retail cost (%)	30	30	30	30	--	--	--	--	--
Retail prices (1982-84=100)									
Food	117	119	120	118	121	123	--	--	--
At home	115	118	119	117	120	120	--	--	--
Away from home	121	123	123	122	125	127	--	--	--
Agricultural exports ($ bil.) 2/	8.7	8.7	10.3	35.3	10.6	9.0	8.1	9.5	36.5
Agricultural imports ($ bil.) 2/	5.0	5.1	5.2	21.0	5.5	5.1	5.2	5.2	21.0
Commercial production									
Red meat (mil. lb.)	9,682	10,138	10,264	39,749	9,785	9,520	9,881	9,734	38,920
Poultry (mil. lb.)	5,209	5,212	5,000	20,407	5,090	5,395	5,530	5,435	21,450
Eggs (mil. doz.)	1,428	1,421	1,446	5,771	1,395	1,385	1,390	1,435	5,605
Milk (bil. lb.)	37.9	36.0	35.4	145.5	36.4	38.7	37.0	36.1	148.2
Consumption, per capita									
Red meat and poultry (lb.)	54.3	55.0	55.8	218.8	54.4	53.7	55.3	56.4	219.8
Corn beginning stocks (mil. bu.) 3/	7,635.2	5,835.5	4,259.1	4,881.7	7,070.9	--	--	--	4,259.1
Corn use (mil. bu.) 3/	1,801.3	1,576.9	2,188.5	7,698.7	--	--	--	--	--
Prices 4/									
Choice steers--Omaha ($/cwt)	72.81	66.92	70.14	69.54	73-75	73-77	68-74	69-75	70-76
Barrows & gilts--7 mkts. ($/cwt)	45.90	44.24	38.66	43.39	40-42	45-49	42-48	42-48	42-48
Broilers--12-city (cts./lb.)	55.6	66.1	57.9	56.3	58-60	55-59	53-59	49-55	53-59
Eggs--NY Gr. A large (cts./doz.)	53.3	72.9	67.3	62.1	78-80	68-72	69-75	72-78	71-77
Milk--all at plant ($/cwt)	11.43	11.87	13.30	12.21	12.70-13.30	11.55-12.25	11.50-12.30	12.50-13.30	12.05-12.80
Wheat--Kansas City HRW ($/bu.)	3.38	3.86	4.11	3.64	--	--	--	--	--
Corn--Chicago ($/bu.)	2.29	2.84	2.75	2.46	--	--	--	--	--
Soybeans--Chicago ($/bu.)	7.01	8.38	7.91	7.36	--	--	--	--	--
Cotton--Avg. spot mkt. (cts./lb.)	61.5	58.5	52.3	57.8	--	--	--	--	--

	1981	1982	1983	1984	1985	1986	1987	1988	1989 F
Gross cash income ($ bil.)	146.0	150.6	150.4	155.2	156.7	152.0	160.5	170	165-169
Gross cash expenses ($ bil.)	113.2	112.8	113.5	116.6	110.2	100.6	103.3	113	115-118
Net cash income ($ bil.)	32.8	37.8	36.9	38.7	46.6	51.4	57.1	58	48-52
Net farm income ($ bil.)	26.9	23.5	12.7	32.3	32.2	37.4	46.3	40	44-48
Farm real estate values (1977=100) 5/	158	157	148	146	128	112	103	106	--

1/ Quarterly data seasonally adjusted at annual rates. 2/ Annual data based on Oct.-Sept. fiscal years ending with year indicated. 3/ Dec.-Feb. first quarter; Mar.-May second quarter; June-Aug. third quarter; Sept.-Nov. fourth quarter; Sept.-Aug. annual. Use includes exports & domestic disappearance. 4/ Simple averages. 5/ Nominal values as of February 1. F = forecast. -- = not available.

Table 2.—U.S. Gross National Product & Related Data

	Annual			1987	1988			
	1986	1987	1988 R	IV	I	II	III	IV R
	$ billion (quarterly data seasonally adjusted at annual rates)							
Gross national product	4,240.3	4,526.7	4,863.1	4,662.8	4,724.5	4,823.8	4,909.0	4,995.2
Personal consumption expenditures	2,807.5	3,012.1	3,227.2	3,076.3	3,128.1	3,194.6	3,261.2	3,325.1
Durable goods	406.5	421.9	451.1	422.0	437.8	449.8	452.9	464.0
Nondurable goods	943.6	997.9	1,047.4	1,012.4	1,016.2	1,036.6	1,060.8	1,076.1
Clothing & shoes	167.0	178.2	186.5	181.2	180.5	183.2	188.4	193.7
Food & beverages	501.0	526.4	551.9	530.9	535.9	546.3	558.9	566.6
Services	1,457.3	1,592.3	1,728.7	1,641.9	1,674.1	1,708.2	1,747.5	1,785.0
Gross private domestic investment	665.9	712.9	766.1	764.9	763.4	758.1	772.5	770.4
Fixed investment	650.4	673.7	717.5	692.9	698.1	714.4	722.8	734.8
Change in business inventories	15.5	39.2	48.6	72.0	65.3	43.7	49.7	35.6
Net exports of goods & services	-104.4	-123.0	-94.3	-125.7	-112.1	-90.4	-80.0	-94.8
Government purchases of goods & services	871.2	924.7	964.1	947.3	945.2	961.6	955.3	994.5
	1982 $ billion (quarterly data seasonally adjusted at annual rates)							
Gross national product	3,721.7	3,847.0	3,995.1	3,923.0	3,956.1	3,985.2	4,009.4	4,029.7
Personal consumption expenditures	2,455.2	2,521.0	2,592.1	2,531.7	2,559.8	2,579.0	2,603.8	2,626.0
Durable goods	385.0	390.9	409.6	387.6	401.1	410.6	410.4	416.5
Nondurable goods	879.5	890.5	900.0	890.5	892.7	893.6	904.5	909.3
Clothing & shoes	157.6	160.5	161.1	160.3	159.6	156.3	164.2	164.3
Food & beverages	448.0	450.4	453.6	449.2	451.4	453.2	453.8	456.2
Services	1,190.7	1,239.5	1,282.5	1,253.6	1,265.9	1,274.8	1,288.9	1,300.2
Gross private domestic investment	643.5	674.8	721.3	724.7	728.9	715.1	726.1	715.1
Fixed investment	628.1	640.4	678.8	657.6	662.9	679.7	686.6	685.8
Change in business inventories	15.4	34.4	42.5	67.1	66.0	35.3	39.5	29.3
Net exports of goods & services	-137.5	-128.9	-99.7	-126.0	-109.0	-92.6	-93.9	-103.3
Government purchases of goods & services	760.5	780.2	781.4	792.6	776.4	783.8	773.5	791.8
GNP implicit price deflator (% change)	2.7	3.3	3.4	2.4	1.7	5.5	4.7	5.3
Disposable personal income ($ bil.)	3,019.6	3,209.7	3,473.0	3,315.8	3,375.6	3,421.5	3,507.5	3,587.4
Disposable per. income (1982 $ bil.)	2,640.9	2,686.3	2,789.5	2,728.9	2,762.3	2,762.2	2,800.4	2,833.1
Per capita disposable per. income ($)	12,496	13,157	14,108	13,543	13,760	13,919	14,231	14,517
Per capita dis. per. income (1982 $)	10,929	11,012	11,331	11,145	11,260	11,237	11,362	11,465
U.S. population, total, incl. military abroad (mil.)	241.6	243.9	246.2	244.8	245.3	245.8	246.5	246.9
Civilian population (mil.)	239.4	241.7	243.9	242.6	243.1	243.6	244.2	244.7

	Annual			1988				1989
	1986	1987	1988 P	Jan	Oct	Nov	Dec	Jan P
	Monthly data seasonally adjusted							
Industrial production (1977=100)	125.1	129.8	137.2	134.4	139.4	139.9	140.6	141.1
Leading economic indicators (1982=100)	132.1	139.6	142.5	138.7	143.9	143.9	144.9	145.7
Civilian employment (mil. persons)	109.6	112.4	115.0	114.1	115.6	115.9	116.0	116.7
Civilian unemployment rate (%)	7.0	6.2	5.5	5.7	5.3	5.3	5.3	5.4
Personal income ($ bil. annual rate)	3,531.1	3,780.0	4,063.4	3,921.8	4,178.3	4,170.4	4,208.0	4,282.0
Money stock-M2 (daily avg.) ($ bil.) 1/	2,807.7	2,909.5	3,071.6	2,930.5	3,042.2	3,059.1	3,071.6	3,068.8
Three-month Treasury bill rate (%)	5.98	5.82	6.69	5.90	7.34	7.68	8.09	8.29
AAA corporate bond yield (Moody's) (%)	9.02	9.38	9.71	9.88	9.51	9.45	9.57	9.62
Housing starts (1,000) 2/	1,805	1,621	1,488	1,391	1,532	1,567	1,568	1,693
Auto sales at retail, total (mil.)	11.4	10.3	10.6	10.7	9.8	10.2	11.5	9.9
Business inventory/sales ratio	1.55	1.50	1.51	1.53	1.50	1.50	1.50	--
Sales of all retail stores ($ bil.)	121.2	125.5	134.4	128.9	136.6	138.3	138.2 P	138.9
Nondurable goods stores ($ bil.)	73.9	76.9	83.6	80.2	85.4	86.0	85.8 P	86.5
Food stores ($ bil.)	24.6	25.3	27.6	26.3	28.1	28.4	28.1 P	28.4
Eating & drinking places ($ bil.)	12.1	12.7	13.1	12.5	13.5	13.7	13.8 P	14.0
Apparel & accessory stores ($ bil.)	6.7	7.1	7.0	6.5	7.2	7.2	7.2 P	7.2

1/ Annual data as of December of the year listed. 2/ Private, including farm. R = revised. P = preliminary. -- = not available.

Information contact: James Malley (202) 786-1782.

Table 3.—Foreign Economic Growth, Inflation, & Export Earnings

	Average 1975-79	1980	1981	1982	1983	1984	1985	1986	1987	1988 P	1989 F	1990 F
	Annual percent change											
Total foreign												
Real GNP	3.7	2.6	1.6	1.7	2.0	3.2	3.0	2.8	3.0	3.7	2.9	3.3
CPI	14.0	16.9	15.6	14.4	18.4	22.5	21.6	11.5	16.2	32.0	46.6	62.9
Export earnings	14.6	22.2	-2.7	-7.0	-2.6	5.6	1.7	11.3	18.6	16.0	8.0	6.2
Developed less U.S.												
Real GNP	3.1	2.4	1.4	1.1	1.9	3.4	3.3	2.4	3.1	3.9	3.1	2.8
CPI	9.4	10.9	9.6	8.0	6.0	5.1	4.7	2.8	2.6	2.9	3.5	2.9
Export earnings	14.9	17.0	-3.3	-4.3	-0.5	6.3	4.6	19.4	17.5	8.4	11.0	9.1
Centrally planned												
Real GNP	3.5	1.5	2.1	2.7	3.4	3.7	2.9	3.9	2.8	3.8	3.4	3.9
Export earnings	16.1	16.5	3.4	6.0	8.2	1.5	-5.1	7.3	6.7	6.5	6.9	6.9
Latin America												
Real GNP	5.1	5.3	0.7	-0.5	-2.7	3.3	3.7	4.1	2.6	-0.1	0.1	3.8
CPI	53.7	61.3	64.9	72.6	126.2	174.1	179.4	86.1	136.8	297.8	449.1	631.3
Export earnings	12.8	30.1	5.3	-10.1	-0.8	6.7	-7.3	-14.2	8.8	20.7	1.4	1.0
Africa & Middle East												
Real GNP	6.4	1.3	0.0	1.4	0.1	1.1	0.0	-1.2	1.8	3.2	0.9	3.5
CPI	16.4	24.6	17.3	12.9	16.7	19.4	11.2	11.7	13.6	17.7	18.0	15.4
Export earnings	13.2	37.9	-9.2	-19.7	-17.5	-7.0	-6.4	-18.3	22.2	3.9	4.3	4.8
Asia												
Real GNP	6.8	6.3	6.6	3.6	6.6	5.4	4.0	5.8	5.9	8.1	5.7	5.3
CPI	8.4	16.4	14.1	7.3	7.7	8.5	5.2	4.5	5.4	7.1	7.4	7.6
Export earnings	18.6	27.8	6.8	-0.3	3.4	13.1	-0.9	5.9	28.1	26.0	14.3	9.5

P = preliminary. F = forecast.

Information contact: Timothy Baxter (202) 786-1706.

Farm Prices

Table 4.—Indexes of Prices Received & Paid by Farmers, U.S. Average

	Annual			1988					1989	
	1986	1987	1988 P	Feb	Sept	Oct	Nov	Dec	Jan R	Feb P
	1977=100									
Prices received										
All farm products	123	127	138	130	144	143	144	145	149	148
All crops	107	106	125	109	135	133	136	136	140	138
Food grains	109	103	138	121	151	154	156	157	160	161
Feed grains & hay	98	85	120	96	137	136	133	134	137	135
Feed grains	96	81	117	93	135	133	130	130	133	129
Cotton	91	98	95	94	86	90	93	91	89	88
Tobacco	138	129	132	127	140	143	145	145	145	145
Oil-bearing crops	77	79	107	89	119	114	112	113	116	109
Fruit, all	170	182	181	166	187	189	194	192	177	182
Fresh market 1/	178	193	194	177	201	204	208	207	190	194
Commercial vegetables	130	144	142	135	145	129	146	146	179	183
Fresh market	123	147	137	131	140	123	144	147	185	182
Potatoes & dry beans	114	126	124	94	127	126	154	158	163	170
Livestock & products	138	146	150	149	153	152	151	154	158	157
Meat animals	145	163	168	172	167	165	163	166	174	174
Dairy products	129	129	126	127	128	134	138	139	138	135
Poultry & eggs	128	107	118	95	139	132	129	126	129	128
Prices paid										
Commodities & services, interest, taxes, & wage rates	159	161	170	--	--	173	--	--	175	--
Production items	147	147	157	--	--	162	--	--	163	--
Feed	108	103	128	--	--	141	--	--	141	--
Feeder livestock	153	179	191	--	--	196	--	--	202	--
Seed	148	148	150	--	--	150	--	--	150	--
Fertilizer	124	118	130	--	--	134	--	--	134	--
Agricultural chemicals	127	124	126	--	--	128	--	--	128	--
Fuels & energy	162	161	166	--	--	165	--	--	166	--
Farm & motor supplies	144	144	148	--	--	152	--	--	153	--
Autos & trucks	198	208	215	--	--	215	--	--	216	--
Tractors & self-propelled machinery	174	174	181	--	--	188	--	--	188	--
Other machinery	182	185	198	--	--	203	--	--	203	--
Building & fencing	136	137	138	--	--	139	--	--	139	--
Farm services & cash rent	145	146	147	--	--	147	--	--	151	--
Interest payable per acre on farm real estate debt	211	190	186	--	--	186	--	--	190	--
Taxes payable per acre on farm real estate	138	139	142	--	--	142	--	--	144	--
Wage rates (seasonally adjusted)	160	166	172	--	--	171	--	--	171	--
Production items, interest, taxes, & wage rates	150	151	161	--	--	163	--	--	165	--
Ratio, prices received to prices paid (%)2/	77	79	81	79	84	83	83	84	85	85
Prices received (1910-14=100)	561	578	630	593	659	654	657	663	682	676
Prices paid, etc. (parity index) (1910-14=100)	1,093	1,110	1,167	--	--	1,193	--	--	1,202	--
Parity ratio (1910-14=100) (%)2/	51	52	54	--	56	55	55	56	56	--

1/ Fresh market for noncitrus; fresh market & processing for citrus. 2/ Ratio of index of prices received for all farm products to index of prices paid for commodities and services, interest, taxes, and wage rates. Ratio derived using the most recent prices paid index. Prices paid data are quarterly and will be published in January, April, July, and October. P = preliminary. R = revised.
-- = not available.

Information contact: National Agricultural Statistics Service (202) 447-5446.

Table 5.—Prices Received by Farmers, U.S. Average

	Annual 1/			1988					1989	
	1986	1987	1988 P	Feb	Sept	Oct	Nov	Dec	Jan R	Feb P
Crops										
All wheat ($/bu.)	2.71	2.55	3.33	2.79	3.75	3.84	3.88	3.94	4.01	4.03
Rice, rough ($/cwt)	5.04	4.59	7.79	9.37	6.82	6.75	6.72	6.60	6.47	6.55
Corn ($/bu.)	1.96	1.56	2.27	1.83	2.60	2.58	2.51	2.53	2.60	2.54
Sorghum ($/cwt)	3.11	2.56	3.66	2.88	4.24	4.17	3.98	3.99	4.09	4.02
All hay, baled ($/ton)	61.60	62.40	78.30	64.60	85.50	86.80	87.50	89.90	91.20	93.70
Soybeans ($/bu.)	5.00	5.08	7.21	5.96	7.94	7.53	7.43	7.53	7.69	7.23
Cotton, upland (cts./lb.)	54.8	59.6	57.2	57.0	51.8	53.9	56.7	55.3	53.9	53.1
Potatoes ($/cwt)	5.03	4.35	5.49	3.73	4.97	4.50	5.74	5.86	6.13	6.40
Lettuce ($/cwt)	11.90	14.70	15.20	10.20	11.10	11.40	12.60	19.00	18.50	13.90
Tomatoes ($/cwt)	25.10	26.00	26.80	19.40	31.90	21.70	40.60	19.90	43.40	62.20
Onions ($/cwt)	10.90	12.50	9.99	15.70	10.40	9.02	9.37	14.00	12.30	10.70
Dry edible beans ($/cwt)	19.10	17.67	22.38	14.20	27.00	29.00	29.70	30.30	29.60	30.90
Apples for fresh use (cts./lb.)	19.8	17.6	16.7	13.0	25.1	20.8	18.9	17.2	17.9	18.1
Pears for fresh use ($/ton)	369.00	227.00	347.00	212.00	418.00	406.00	373.00	299.00	286.00	292.00
Oranges, all uses ($/box) 2/	4.27	5.03	6.56	6.30	4.17	5.48	5.82	6.50	6.20	6.21
Grapefruit, all uses ($/box) 2/	4.29	4.96	5.39	5.45	7.34	7.57	4.77	4.71	3.72	3.34
Livestock										
Beef cattle ($/cwt)	52.80	61.40	66.80	67.40	67.20	67.10	66.70	67.20	70.60	70.70
Calves ($/cwt)	60.90	78.10	89.80	92.60	89.00	87.80	87.80	88.60	92.80	93.90
Hogs ($/cwt)	50.10	50.80	42.50	45.80	40.70	38.70	36.20	39.70	40.90	40.00
Lambs ($/cwt)	69.10	77.90	69.50	80.40	64.30	66.20	66.30	68.60	67.40	66.40
All milk, sold to plants ($/cwt)	12.50	12.50	12.20	12.30	12.40	13.00	13.40	13.50	13.40	13.10
Milk, manuf. grade ($/cwt)	11.46	11.37	11.21	11.00	11.60	12.30	12.50	12.60	12.20	11.80
Broilers (cts./lb.)	34.5	28.8	34.0	25.7	39.2	37.5	35.0	35.5	35.3	35.2
Eggs (cts./doz.) 3/	61.2	53.1	53.2	46.9	63.8	58.7	59.4	59.7	63.9	62.1
Turkeys (cts./lb.)	44.4	34.3	36.5	29.0	45.7	47.8	47.6	37.6	35.4	38.3
Wool (cts./lb.) 4/	64.3	87.1	124.1	93.3	111.0	135.0	116.0	101.0	107.0	123.0

1/ Calendar year averages, except for potatoes, dry edible beans, apples, oranges, & grapefruit, which are crop years. 2/ Equivalent on-tree returns. 3/ Average of all eggs sold by producers including hatching eggs & eggs sold at retail. 4/ Average local market price, excluding incentive payments. P = preliminary. R = revised.

Information contact: National Agricultural Statistics Service (202) 447-5446.

Producer & Consumer Prices

Table 6.—Consumer Price Index for All Urban Consumers, U.S. Average (Not Seasonally Adjusted)

	Annual	1988								1989
	1988	Jan	June	July	Aug	Sept	Oct	Nov	Dec	Jan
					1982-84=100					
Consumer Price Index, all items	118.3	115.7	118.0	118.5	119.0	119.8	120.2	120.3	120.5	121.1
Consumer Price Index, less food	118.3	115.7	118.1	118.4	118.9	119.7	120.2	120.3	120.4	120.8
All food	118.2	115.7	117.6	118.8	119.4	120.2	120.3	120.2	120.7	122.2
Food away from home	121.8	119.3	121.5	122.1	122.5	123.0	123.4	123.7	124.1	124.7
Food at home	116.6	114.1	115.8	117.3	118.1	119.0	119.0	118.7	119.1	121.2
Meats 1/	112.2	110.1	113.8	113.4	113.2	113.4	113.0	113.0	112.7	114.0
Beef & veal	112.1	107.7	114.1	113.4	112.7	113.6	113.7	114.7	114.6	116.0
Pork	112.5	113.4	114.6	114.3	114.1	113.7	111.8	110.0	109.6	111.5
Poultry	120.7	108.9	120.1	129.0	131.7	133.4	129.4	127.2	127.1	128.8
Fish	137.4	137.2	136.0	138.1	137.9	136.0	137.4	138.7	138.9	144.0
Eggs	93.6	90.1	83.6	95.1	104.2	103.1	105.5	101.2	99.6	112.0
Dairy products 2/	108.4	107.4	107.2	107.6	108.2	108.9	109.9	110.6	111.4	112.6
Fats & oils 3/	113.1	108.5	111.5	112.6	114.9	115.9	117.1	117.1	118.5	119.6
Fresh fruit	143.0	130.7	143.6	147.8	150.1	153.3	149.7	144.3	143.2	145.4
Processed fruit	122.0	115.1	123.5	123.0	123.4	123.8	124.3	125.0	124.4	125.6
Fresh vegetables	129.3	143.9	121.8	127.0	125.9	132.1	129.4	126.7	133.0	141.4
Potatoes	119.1	104.6	122.2	125.7	132.0	124.8	125.2	126.0	128.5	130.8
Processed vegetables	112.2	107.2	110.0	111.3	113.9	116.4	117.9	118.1	118.9	120.9
Cereals & bakery products	122.1	118.1	120.8	122.1	124.0	124.7	125.6	125.9	126.6	127.9
Sugar & sweets	114.0	112.2	113.3	114.0	114.8	115.6	116.0	115.9	116.7	117.2
Beverages, nonalcoholic	107.5	106.9	107.1	107.2	107.0	107.4	108.1	108.2	107.8	109.6
Apparel commodities less footwear	114.4	108.9	113.6	111.3	111.3	117.0	119.9	119.1	116.8	113.5
Footwear	109.9	106.1	109.2	108.2	107.4	112.2	115.9	114.5	113.5	112.2
Tobacco & smoking products	145.8	140.8	143.6	147.5	148.6	148.9	149.3	149.7	149.9	157.0
Beverages, alcoholic	118.6	115.8	118.7	119.2	119.3	119.6	119.8	119.9	119.9	120.3

1/ Beef, veal, lamb, pork, & processed meat. 2/ Includes butter. 3/ Excludes butter.

Information contact: Ralph Parlett (202) 786-1870.

Table 7.—Producer Price Indexes, U.S. Average (Not Seasonally Adjusted)

	Annual			1988						1989
	1986	1987	1988 P	Jan	Aug	Sept R	Oct	Nov	Dec	Jan
	1982=100									
Finished goods 1/	103.2	105.4	108.0	106.3	108.7	108.6	109.3	109.7	110.0	111.0
Consumer foods	107.2	109.5	112.6	110.5	113.6	115.1	114.6	114.9	115.1	116.5
Fresh fruit	112.9	112.0	112.7	109.2	110.3	119.0	109.4	122.1	116.8	107.8
Fresh & dried vegetables	97.8	103.7	105.4	126.3	103.3	116.5	111.9	115.0	110.5	109.3
Dried fruit	91.9	95.0	99.1	97.8	99.3	99.8	97.3	100.7	100.7	101.1
Canned fruit & juice	111.0	115.3	120.1	118.9	120.4	120.5	120.6	121.4	121.5	121.8
Frozen fruit & juice	103.0	113.3	129.9	125.4	130.8	130.7	130.6	129.7	129.2	127.3
Fresh veg. excl. potatoes	99.3	99.0	100.4	135.9	94.3	110.4	101.0	103.8	96.7	93.4
Canned veg. & juices	101.2	103.5	108.3	103.2	112.0	111.7	114.6	116.0	118.0	119.4
Frozen vegetables	106.6	107.3	108.5	107.0	109.4	110.0	110.4	112.0	112.7	113.1
Potatoes	104.0	120.1	114.1	107.5	108.8	123.2	134.6	140.5	144.3	150.7
Eggs	99.5	87.6	88.6	76.5	107.0	102.1	107.4	99.7	100.3	116.5
Bakery products	116.6	118.4	126.4	122.4	126.9	129.4	130.1	130.2	130.6	132.5
Meats	93.9	100.4	99.9	98.4	99.8	101.2	98.2	97.6	98.8	102.6
Beef & veal	88.1	95.5	101.4	96.5	98.2	104.4	102.4	103.6	104.7	107.5
Pork	99.9	104.9	95.2	97.8	99.9	94.8	88.8	85.1	87.3	95.0
Processed poultry	116.7	103.4	111.4	97.9	123.8	125.4	122.5	118.2	114.4	115.7
Fish	124.9	140.0	151.7	152.0	143.9	145.6	155.1	161.0	162.1	161.3
Dairy products	99.9	101.6	102.2	101.0	102.2	103.8	104.8	105.3	106.3	107.3
Processed fruits & vegetables	104.9	108.6	113.8	110.9	115.2	115.5	116.3	117.6	118.5	119.1
Shortening & cooking oil	103.3	103.9	118.9	114.2	124.8	122.5	121.0	118.4	118.7	117.0
Consumer finished goods less foods	98.4	100.7	103.1	101.5	103.9	103.0	104.0	104.5	104.8	105.8
Beverages, alcoholic	110.1	110.3	111.9	110.5	112.5	111.9	112.6	112.6	112.1	112.1
Soft drinks	109.5	111.8	114.1	113.0	114.1	114.6	114.9	115.0	115.3	115.7
Apparel	106.3	108.3	111.7	110.3	112.2	112.5	112.6	112.7	113.2	113.7
Footwear	106.8	109.3	115.2	112.7	116.0	116.2	116.5	117.0	117.4	118.1
Tobacco products	142.4	154.6	171.9	166.6	175.4	175.4	175.5	175.5	184.8	187.5
Intermediate materials 2/	99.1	101.5	107.1	104.2	108.4	108.7	108.6	109.0	109.5	110.5
Materials for food manufacturing	98.4	100.8	105.9	101.9	108.9	109.5	108.2	107.4	108.3	109.9
Flour	94.5	92.9	105.7	94.4	111.8	114.1	115.2	113.1	113.2	114.9
Refined sugar 3/	103.2	106.4	108.6	105.7	110.0	109.9	111.5	112.0	112.8	113.2
Crude vegetable oils	84.8	84.2	116.8	104.9	134.5	125.3	115.2	107.6	108.4	108.9
Crude materials 4/	87.7	93.7	95.9	93.7	96.9	96.7	95.8	94.0	97.0	101.0
Foodstuffs & feedstuffs	93.2	96.2	106.0	97.2	110.4	112.0	111.4	107.7	109.5	112.4
Fruits & vegetables 5/	103.9	106.8	108.1	118.2	105.9	117.4	110.3	117.6	112.7	108.1
Grains	79.2	71.1	97.9	77.5	109.9	112.9	113.8	107.4	108.9	115.2
Livestock	91.8	102.0	103.0	99.3	100.6	100.7	101.2	97.8	100.5	103.9
Poultry, live	129.6	101.2	121.5	99.1	145.1	142.7	141.0	128.0	121.7	122.4
Fibers, plant & animal	88.3	106.4	98.4	100.7	98.7	89.6	89.7	93.1	93.9	95.8
Fluid milk	90.9	91.8	89.1	90.5	88.1	91.2	92.8	95.1	97.5	97.0
Oilseeds	91.4	99.2	134.0	110.0	150.7	155.7	141.0	134.7	137.5	143.6
Tobacco, leaf	89.7	85.7	87.2	87.2	84.0	91.1	93.1	94.4	94.4	93.7
Sugar, raw cane	104.9	110.2	111.9	109.7	111.8	111.6	110.7	110.2	112.0	111.0
All commodities	100.1	102.8	106.9	104.6	108.0	108.1	108.2	108.3	109.0	110.3
Industrial commodities	99.9	102.5	106.3	104.4	107.0	106.8	107.1	107.4	108.1	109.4
All foods 6/	105.5	107.8	111.5	109.2	112.9	114.6	113.7	113.9	114.2	115.6
Farm products & processed foods & feeds	101.2	103.7	110.0	105.3	112.7	114.0	113.5	112.3	112.9	114.8
Farm products	92.9	95.5	104.8	97.3	109.3	111.6	110.3	107.4	108.6	111.4
Processed foods & feeds 6/	105.4	107.9	112.8	109.3	114.5	115.4	115.2	114.9	115.1	116.7
Cereal & bakery products	111.0	112.6	122.9	118.2	124.6	126.4	126.5	125.9	126.3	128.5
Sugar & confectionery	109.6	112.6	114.6	112.5	115.9	115.9	115.9	116.6	116.7	116.9
Beverages	114.5	112.5	114.3	112.5	114.6	114.7	115.3	115.2	115.7	116.0

1/ Commodities ready for sale to ultimate consumer. 2/ Commodities requiring further processing to become finished goods. 3/ All types & sizes of refined sugar. 4/ Products entering market for the first time that have not been manufactured at that point. 5/ Fresh & dried. 6/ Includes all raw, intermediate, & processed foods (excludes soft drinks, alcoholic beverages, & manufactured animal feeds). P = preliminary. R = revised.

Information contact: Bureau of Labor Statistics (202) 523-1913.

Table 8.—Farm-Retail Price Spreads

	Annual 1985	1986	1987	1988 P	1988 Jan	Aug	Sept	Oct	Nov	Dec	1989 Jan
Market basket 1/											
Retail cost (1982-84=100)	104.1	106.3	111.6	116.5	113.9	118.4	119.5	119.3	118.9	119.5	121.5
Farm value (1982-84=100)	96.2	94.9	97.1	100.3	95.3	104.5	104.7	102.9	103.9	103.0	105.8
Farm-retail spread (1982-84=100)	108.3	112.5	119.4	125.3	123.9	125.8	127.3	128.1	127.0	128.4	130.0
Farm value-retail cost (%)	32.4	31.2	30.5	30.1	29.3	30.9	30.7	30.2	30.6	30.2	30.5
Meat products											
Retail cost (1982-84=100)	98.9	102.0	109.6	112.2	110.1	113.2	113.4	113.0	113.0	112.7	114.0
Farm value (1982-84=100)	91.3	94.3	101.2	99.5	93.3	97.5	100.3	97.6	97.4	97.7	102.7
Farm-retail spread (1982-84=100)	106.7	109.8	118.3	125.2	127.4	129.3	126.8	128.8	129.0	128.1	125.6
Farm value-retail cost (%)	46.8	46.8	46.7	44.9	42.9	43.6	44.8	43.7	43.7	43.9	45.6
Dairy products											
Retail cost (1982-84=100)	103.2	103.3	105.9	108.4	107.4	108.2	108.9	109.9	110.6	111.4	112.6
Farm value (1982-84=100)	95.2	92.6	93.3	90.4	92.4	88.8	89.3	92.3	96.3	97.3	98.6
Farm-retail spread (1982-84=100)	110.5	113.3	117.5	124.9	121.3	126.1	127.0	126.1	123.8	124.4	125.5
Farm value-retail cost (%)	44.2	43.0	42.3	40.0	41.3	39.4	39.4	40.3	41.8	41.9	42.0
Poultry											
Retail cost (1982-84=100)	106.2	114.2	112.6	120.7	108.9	131.7	133.4	129.4	127.2	127.1	128.8
Farm value (1982-84=100)	105.9	115.1	93.8	110.4	88.8	133.8	128.4	124.8	117.9	114.4	112.8
Farm-retail spread (1982-84=100)	106.6	113.3	134.2	132.6	132.0	129.3	139.1	134.7	137.9	141.7	147.2
Farm value-retail cost (%)	53.3	53.9	44.6	49.0	43.6	54.4	51.5	51.6	49.6	48.2	46.9
Eggs											
Retail cost (1982-84=100)	91.0	97.2	91.5	93.6	90.1	104.2	103.1	105.5	101.2	99.6	112.0
Farm value (1982-84=100)	85.7	92.4	76.8	76.7	68.2	86.6	97.0	87.6	89.2	90.1	96.4
Farm-retail spread (1982-84=100)	100.4	106.0	117.9	123.9	129.4	135.9	114.1	137.6	122.8	116.7	140.0
Farm value-retail cost (%)	60.5	61.0	53.9	52.7	48.7	53.4	60.4	53.4	56.6	58.1	55.3
Cereal & bakery products											
Retail cost (1982-84=100)	107.9	110.9	114.8	122.1	118.1	124.0	124.7	125.6	125.9	126.6	127.9
Farm value (1982-84=100)	94.3	76.3	71.0	92.3	80.1	99.1	98.7	100.1	98.9	101.0	102.7
Farm-retail spread (1982-84=100)	109.8	115.7	120.9	126.3	123.4	127.5	128.3	129.2	129.7	130.2	131.4
Farm value-retail cost (%)	10.7	8.4	7.6	9.3	8.3	9.8	9.7	9.8	9.6	9.8	9.8
Fresh fruits											
Retail cost (1982-84=100)	118.4	120.4	135.6	145.4	133.6	153.5	157.5	151.9	147.6	147.0	150.1
Farm value (1982-84=100)	110.8	103.8	113.9	113.3	110.6	125.5	118.6	116.0	123.9	110.9	106.1
Farm-retail spread (1982-84=100)	121.8	128.0	145.7	160.2	144.2	166.4	175.5	168.5	158.5	163.7	170.4
Farm value-retail cost (%)	29.6	27.4	26.5	24.6	26.2	25.8	23.8	24.1	26.5	23.8	22.3
Fresh vegetables											
Retail costs (1982-84=100)	103.5	107.7	121.6	129.3	143.9	125.9	132.1	129.4	126.7	133.0	141.4
Farm value (1982-84=100)	93.1	90.0	112.0	105.8	133.2	121.4	113.5	97.7	111.4	108.5	119.2
Farm-retail spread (1982-84=100)	108.9	116.8	126.5	141.3	149.4	128.2	141.7	145.7	134.6	145.6	152.8
Farm value-retail cost (%)	30.5	28.4	31.3	27.8	31.4	32.7	29.2	25.6	29.9	27.7	28.6
Processed fruits & vegetables											
Retail cost (1982-84=100)	107.0	105.3	109.0	117.6	111.6	119.2	120.4	121.4	121.9	121.9	123.4
Farm value (1982-84=100)	117.7	101.5	111.1	136.5	128.3	140.1	142.7	145.2	145.0	136.8	137.5
Farm-retail spread (1982-84=100)	103.7	106.4	108.3	111.7	106.4	112.7	113.4	114.0	114.7	117.3	119.0
Farm value-retail costs (%)	26.2	22.9	24.2	27.6	27.3	27.9	28.2	28.4	28.3	26.7	26.5
Fats & oils											
Retail cost (1982-84=100)	108.9	106.5	108.1	113.1	108.5	114.9	115.9	117.1	117.1	118.5	119.6
Farm value (1982-84=100)	104.3	76.2	74.1	103.3	93.5	114.7	106.1	102.5	98.9	101.0	98.6
Farm-retail spread (1982-84=100)	110.6	117.6	120.6	116.7	114.0	115.0	119.5	122.5	123.8	124.9	127.3
Farm value-retail cost (%)	25.8	19.2	18.6	24.6	23.2	26.9	24.6	23.5	22.7	22.9	22.2

	Annual 1985	1986	1987	1988 P	1988 Jan	Aug	Sept	Oct	Nov	Dec	1989 Jan
Beef, Choice											
Retail price 2/ (cts./lb.)	232.6	230.7	242.5	254.7	242.9	257.8	259.7	257.8	260.4	260.0	264.3
Net carcass value 3/ (cts.)	135.2	133.1	145.3	153.9	144.7	150.5	153.6	155.4	156.0	158.1	159.8
Net farm value 4/ (cts.)	126.8	124.4	137.9	147.4	136.6	142.9	145.8	148.8	151.5	154.0	155.8
Farm-retail spread (cts.)	105.8	106.3	104.6	107.3	106.3	114.9	113.8	109.0	108.9	106.0	108.5
Carcass-retail spread 5/ (cts.)	97.4	97.6	97.2	100.8	98.2	107.3	106.0	102.5	104.4	101.9	104.5
Farm-carcass spread 6/ (cts.)	8.4	8.7	7.4	6.5	8.1	7.6	7.8	6.5	4.5	4.1	4.0
Farm value-retail price (%)	55	54	57	58	56	55	56	58	58	59	59
Pork											
Retail price 2/ (cts./lb.)	162.0	178.4	188.4	183.4	185.3	185.5	184.9	181.6	178.0	177.4	181.1
Wholesale value 3/ (cts.)	101.1	110.9	113.0	101.0	104.0	101.4	97.2	95.8	92.2	97.8	94.3
Net farm value 4/ (cts.)	71.4	82.4	82.7	69.4	71.3	73.4	65.1	62.2	58.3	66.0	66.7
Farm-retail spread (cts.)	90.6	96.0	105.7	114.0	114.0	112.1	119.8	119.4	119.7	111.4	114.4
Wholesale-retail spread 5/ (cts.)	60.9	67.5	75.4	82.4	81.3	84.1	87.7	85.8	85.8	79.6	86.8
Farm-wholesale spread 6/ (cts.)	29.7	28.5	30.3	31.6	32.7	28.0	32.1	33.6	33.9	31.8	27.6
Farm value-retail price (%)	44	46	44	38	38	40	35	34	33	37	37

1/ Retail costs are based on indexes of retail prices for domestically produced farm foods from the CPI-U published monthly by the Bureau of Labor Statistics. The farm value is the payment to farmers for quantity of farm product equivalent to retail unit, less allowance for byproduct. Farm values are based on prices at first point of sale & may include marketing charges such as grading & packing for some commodities. The farm-retail spread, the difference between the retail price & the farm value, represents charges for assembling, processing, transporting, distributing these foods. 2/ Estimated weighted average price of retail cuts from pork & choice yield grade 3 beef carcasses. Retail cut prices from BLS. 3/ Value of carcass quantity (beef) & wholesale cuts (pork) equivalent to 1 lb. of retail cuts; beef adjusted for value of fat & bone byproducts. 4/ Market value to producer for quantity of live animal equivalent to 1 lb. of retail cuts minus value of byproducts. 5/ Represents charges for retailing & other marketing services such as fabricating, wholesaling, in-city transportation. 6/ Represents charges made for livestock marketing, processing, & transportation to city where consumed. P = preliminary.

Information contacts: Denis Dunham (202) 786-1870, Ron Gustafson (202) 786-1286.

Table 9.—Price Indexes of Food Marketing Costs

(See the March 1989 issue.)

Information contact: Denis Dunham (202-786-1870)

Table 10.—U.S. Meat Supply & Use

	Beg. stocks	Production 1/	Imports	Total supply	Exports	Shipments	Ending stocks	Consumption: Total	Consumption: Per capita 2/	Primary market price 3/
	Million pounds 4/								Pounds	
Beef										
1986	420	24,371	2,129	26,919	521	52	412	25,935	78.4	57.75
1987	412	23,566	2,269	26,247	604	52	386	25,205	73.4	64.60
1988 P	386	23,580	2,379	26,345	680	61	406	25,198	72.7	69.54
1989 F	406	22,861	2,200	25,467	700	60	325	24,382	69.7	70-76
Pork										
1986	289	14,063	1,122	15,474	86	132	248	15,008	58.6	51.19
1987	248	14,374	1,195	15,817	109	124	347	15,237	59.1	51.69
1988 P	347	15,676	1,137	17,160	195	135	413	16,417	63.1	43.39
1989 F	413	15,562	1,100	17,075	130	140	325	16,480	62.9	42-48
Veal										
1986	11	524	27	562	5	1	7	550	1.9	60.89
1987	7	429	24	460	7	1	4	449	1.5	78.05
1988 P	4	400	27	431	10	1	5	415	1.4	89.79
1989 F	5	403	25	433	9	1	4	419	1.4	86-92
Lamb & mutton										
1986	13	338	41	392	2	2	13	375	1.4	70.26
1987	13	315	44	372	2	2	8	360	1.3	78.09
1988 P	8	335	51	394	1	1	7	385	1.4	68.84
1989 F	7	336	55	398	1	0	7	390	1.4	63-69
Total red meat										
1986	733	39,296	3,319	43,348	613	187	680	41,868	140.2	--
1987	680	38,684	3,533	42,897	722	179	744	41,251	135.3	--
1988 P	745	39,991	3,594	44,330	886	198	831	42,415	138.5	--
1989 F	831	39,162	3,380	43,373	840	201	661	41,671	135.4	--
Broilers										
1986	27	14,316	0	14,342	566	149	24	13,603	56.3	56.9
1987	24	15,594	0	15,618	752	151	25	14,691	60.2	47.4
1988 P	25	16,057	0	16,082	765	151	36	15,130	61.5	56.3
1989 F	36	16,950	0	16,986	700	140	25	16,121	64.9	53-59
Mature chicken										
1986	144	627	0	771	16	3	163	589	2.4	--
1987	163	650	0	814	15	2	188	608	2.5	--
1988 P	188	627	0	816	26	3	160	627	2.5	--
1989 F	160	648	0	808	18	4	150	636	2.6	--
Turkeys										
1986	150	3,271	0	3,422	27	4	178	3,212	13.3	72.2
1987	178	3,828	0	4,006	33	4	282	3,686	15.1	57.8
1988 P	282	4,008	0	4,291	51	2	252	3,985	16.2	61.3
1989 F	252	4,170	0	4,422	40	4	175	4,203	16.9	64-70
Total poultry										
1986	321	18,215	0	18,535	609	156	365	17,405	72.0	--
1987	365	20,072	0	20,437	800	157	495	18,985	77.8	--
1988 P	495	20,693	0	21,188	843	156	448	19,742	80.2	--
1989 F	448	21,768	0	22,216	758	148	350	20,960	84.4	--
Red meat & poultry										
1986	1,054	57,511	3,319	61,883	1,223	343	1,045	59,273	212.3	--
1987	1,045	58,756	3,533	63,334	1,522	336	1,240	60,236	213.2	--
1988 P	1,240	60,684	3,594	65,518	1,729	354	1,279	62,157	218.8	--
1989 F	1,279	60,930	3,380	65,589	1,598	349	1,011	62,631	219.8	--

1/ Total including farm production for red meats & federally inspected plus nonfederally inspected for poultry. 2/ Retail weight basis. (The beef carcass-to-retail conversion factor was .74 during 1962-85. It was lowered to .73 for 1986 & to .71 for 1987 & later.) 3/ Dollars per cwt for red meat; cents per pound for poultry. Beef: Choice steers, Omaha 1,000-1,100 lb.; pork: barrows and gilts, 7 markets; veal: farm price of calves; lamb & mutton: Choice slaughter lambs, San Angelo; broilers: wholesale 12-city average; turkeys: wholesale NY 8-16 lb. young hens. 4/ Carcass weight for red meats & certified ready-to-cook for poultry. P = Preliminary. F = forecast. -- = not available.

Information contacts: Ron Gustafson, Leland Southard, or Mark Weimar (202) 786-1285.

Table 11.—U.S. Egg Supply & Use

	Beg. stocks	Production	Imports	Total supply	Exports	Shipments	Hatching use	Ending stocks	Consumption Total	Consumption Per capita	Wholesale price*
	Million dozen									No.	Cts./doz.
1984	9.3	5,708.3	32.0	5,749.7	58.2	27.8	529.7	11.1	5,122.8	259.4	80.9
1985	11.1	5,688.0	12.7	5,711.8	70.6	30.3	548.1	10.7	5,052.0	253.3	66.4
1986	10.7	5,704.9	13.7	5,729.3	101.6	28.0	566.8	10.4	5,022.5	249.4	71.1
1987	10.4	5,802.3	5.6	5,818.3	111.2	25.1	599.1	14.4	5,068.5	249.3	61.6
1988	14.4	5,771.1	5.3	5,790.8	141.8	25.4	604.3	10.0	5,009.3	244.3	62.1
1989 F	10.0	5,605.0	6.0	5,621.0	110.0	24.0	630.0	10.0	4,847.0	234.2	71-77

* Cartoned grade A large eggs, New York. F = forecast.

Information contact: Robert Bishop (202) 786-1714.

Table 12.—U.S. Milk Supply & Use[1]

	Production	Farm use	Commercial Farm marketings	Commercial Beg. stocks	Imports	Total commercial supply	CCC net removals	Commercial Ending stocks	Commercial Disappearance	All milk price 2/
	Billion pounds									$/cwt
1981	132.8	2.3	130.5	5.8	2.3	138.5	12.9	5.4	120.3	13.77
1982	135.5	2.4	133.1	5.4	2.5	141.0	14.3	4.6	122.1	13.61
1983	139.7	2.4	137.3	4.6	2.6	144.5	16.8	5.2	122.5	13.58
1984	135.4	2.9	132.5	5.2	2.7	140.5	8.6	4.9	126.9	13.46
1985	143.1	2.5	140.7	4.9	2.8	148.4	13.2	4.6	130.6	12.75
1986	143.4	2.4	141.0	4.6	2.7	148.3	10.6	4.2	133.5	12.51
1987	142.5	2.2	140.3	4.2	2.5	146.9	6.7	4.6	135.6	12.54
1988 F	145.5	2.2	143.3	4.6	2.4	150.3	8.9	4.3	137.1	12.21
1989 P	148.2	2.2	146.0	4.3	2.4	152.7	8.5	4.7	139.5	12.40

1/ Milkfat basis. Totals may not add because of rounding. 2/ Delivered to plants & dealers; does not reflect deductions. F = forecast.

Information contact: Jim Miller (202) 786-1770.

Table 13.—Poultry & Eggs

	Annual 1986	Annual 1987	Annual 1988 P	1988 Jan	1988 Aug	1988 Sept	1988 Oct	1988 Nov	1988 Dec	1989 Jan
Broilers										
Federally inspected slaughter, certified (mil. lb.)	14,265.6	15,502.5	15,984.0	1,306.1	1,421.9	1,377.4	1,323.6	1,260.1	1,284.6	1,362.2
Wholesale price, 12-city (cts./lb.)	56.9	47.4	56.3	43.9	68.9	62.8	57.7	57.1	58.8	58.0
Price of grower feed ($/ton)	187	186	220	195	246	245	255	259	254	246
Broiler-feed price ratio 1/	3.7	3.7	3.1	2.8	3.4	3.2	2.9	2.7	2.8	2.9
Stocks beginning of period (mil. lb.)	26.6	23.9	24.8	24.8	43.8	31.2	32.0	34.6	35.0	35.9
Broiler-type chicks hatched (mil.) 2/	5,013.3	5,379.2	5,588.7	464.5	478.8	454.3	452.3	437.1	487.5	481.3
Turkeys										
Federally inspected slaughter, certified (mil. lb.)	3,133	3,717	3,903	255.7	377.3	365.7	379.5	365.3	270.5	248.9
Wholesale price, Eastern U.S., 8-16 lb. young hens (cts./lb.)	72.2	57.8	61.3	52.8	70.5	76.0	79.6	76.0	61.6	59.0
Price of turkey grower feed ($/ton)	215	213	243	226	268	269	266	264	269	260
Turkey-feed price ratio 1/	4.1	3.9	3.0	2.8	3.1	3.4	3.6	3.6	2.8	2.7
Stocks beginning of period (mil. lb.)	150.2	178.2	282.4	282.4	503.2	561.2	583.1	589.9	304.3	252.4
Poults placed in U.S. (mil.)	225.4	240.4	242.0	22.3	19.3	16.0	16.2	18.3	20.0	23.1
Eggs										
Farm production (mil.)	68,460	69,627	69,253	6,031	5,746	5,580	5,833	5,694	5,824	5,721
Average number of layers (mil.)	278	280	286	285	271	274	276	276	273	272
Rate of lay (eggs per layer on farms)	248	248	251	21.1	21.2	20.4	21.2	20.6	21.3	21.1
Cartoned price, New York, grade A large (cts./doz.) 3/	71.1	61.6	62.1	55.9	69.5	75.7	66.0	65.3	70.7	72.0
Price of laying feed ($/ton)	174	170	202	176	237	236	222	220	221	215
Egg-feed price ratio 1/	7.0	7.6	5.3	5.6	4.9	5.4	5.3	5.4	5.4	5.9
Stocks, first of month										
Shell (mil. doz.)	.72	1.16	1.29	1.29	.84	.75	.69	.72	.78	.36
Frozen (mil. doz.)	10.0	9.8	13.1	13.1	17.4	18.7	16.8	15.2	13.7	15.0
Replacement chicks hatched (mil.)	424	428	366	29.5	27.3	30.6	30.6	29.2	27.0	26.6

1/ Pounds of feed equal in value to 1 dozen eggs or 1 lb. of broiler or turkey liveweight. 2/ Placement of broiler chicks is currently reported for 12 States only; henceforth, hatch of broiler-type chicks will be used as a substitute. 3/ Price of cartoned eggs to volume buyers for delivery to retailers. P = preliminary.

Information contact: Mark Weimar (202) 786-1714.

Table 14.—Dairy

	Annual			1988						1989
	1986	1987	1988 P	Jan	Aug	Sept	Oct	Nov	Dec	Jan
Milk prices, Minnesota-Wisconsin, 3.5% fat ($/cwt) 1/	11.30	11.23	11.03	10.91	10.98	11.48	11.88	12.23	12.27	11.90
Wholesale prices										
Butter, grade A Chi. (cts./lb.)	144.5	140.2	132.5	131.9	135.6	134.3	132.0	131.2	131.2	131.0
Am. cheese, Wis. assembly pt. (cts./lb.)	127.3	123.2	123.8	118.4	127.6	134.6	136.4	136.3	136.0	129.1
Nonfat dry milk (cts./lb.) 2/	80.6	79.3	80.2	79.8	80.6	87.2	88.8	90.1	92.7	93.6
USDA net removals										
Total milk equiv. (mil. lb.) 3/	10,628.1	6,706.0	8,856.2	1,628.4	240.0	142.3	339.1	217.3	448.7	1,559.0
Butter (mil. lb.)	287.6	187.3	312.6	56.4	7.8	5.0	15.2	9.2	19.8	73.8
Am. cheese (mil. lb.)	468.4	282.0	238.1	46.6	7.5	3.4	2.2	2.3	3.8	3.5
Nonfat dry milk (mil. lb.)	827.3	559.4	267.5	48.1	-.4	0	0	0	0	0
Milk										
Milk prod. 21 States (mil. lb.)	121,433	121,294	123,896	10,221	10,282	9,967	10,125	9,790	10,251	10,465
Milk per cow (lb.)	13,399	13,955	14,378	1,178	1,196	1,158	1,179	1,140	1,193	1,220
Number of milk cows (1,000)	9,063	8,692	8,617	8,673	8,596	8,604	8,591	8,585	8,594	8,577
U.S. milk production (mil. lb.)	143,381	142,557	145,527	6/12,037	6/12,041	6/11,672	6/11,893	6/11,500	6/12,041	6/12,344
Stock, beginning										
Total (mil. lb.)	13,695	12,867	7,371	7,371	11,277	10,872	9,536	9,091	8,364	8,189
Commercial (mil. lb.)	4,590	4,165	4.577	4,577	5,403	5,182	4,681	4,501	4,051	4,289
Government (mil. lb.)	9,105	8,702	2,794	2,794	5,874	5,691	4,855	4.590	4,313	3,900
Imports, total (mil. lb.) 3/	2,733	2,490	2,394	235	211	178	210	240	235	--
Commercial disappearance (mil. lb.)	133,498	135,726	137,145	10,248	12,046	12,028	11,757	11,792	11,402	--
Butter										
Production (mil. lb.)	1,202.4	1,104.1	1,198.2	124.7	74.2	83.0	92.2	92.2	111.2	129.0
Stocks, beginning (mil. lb.)	205.5	193.0	143.2	143.2	295.7	290.0	247.6	237.3	266.3	214.7
Commercial disappearance (mil. lb.)	922.9	902.5	900.4	65.6	65.5	89.5	81.7	89.7	93.9	--
American cheese										
Production (mil. lb.)	2,798.2	2,716.7	2,787.0	225.8	213.7	210.1	224.1	214.1	242.1	225.6
Stocks, beginning (mil. lb.)	850.2	697.1	370.4	370.4	415.8	385.1	344.4	321.7	280.2	293.0
Commercial disappearance (mil. lb.)	2,382.8	2,444.1	2,600.4	179.6	235.4	230.2	231.7	236.6	210.4	--
Other cheese										
Production (mil. lb.)	2,411.1	2,627.6	2,744.7	207.0	228.0	238.5	243.4	239.9	240.6	230.9
Stocks, beginning (mil. lb.)	94.1	92.0	89.7	89.7	107.4	109.9	106.5	107.4	106.1	104.7
Commercial disappearance (mil. lb.)	2,684.9	2,880.1	2,963.9	224.1	247.9	260.0	264.7	267.2	267.5	--
Nonfat dry milk										
Production (mil. lb.)	1,284.1	1,059.0	968.4	83.8	66.6	60.1	56.0	56.0	73.4	87.1
Stocks, beginning (mil. lb.)	1,011.1	686.8	177.2	177.2	138.5	92.9	63.6	64.3	50.4	53.1
Commercial disappearance (mil. lb.)	479.1	495.1	722.9	44.0	85.2	69.1	50.9	66.8	67.5	--
Frozen dessert										
Production (mil. gal.) 4/	1,248.6	1,263.4	1,270.1	76.0	132.3	110.0	91.5	83.4	79.9	80.5

	Annual			1987			1988			
	1986	1987	1988	II	III	IV	I	II	III	IV P
Milk production (mil. lb.)	143,381	142,557	145,527	37,405	35,533	34,811	36,197	37,871	36,025	35,434
Milk per cow (lb.)	13,260	13,802	14,213	3,620	3,458	3,385	3,519	3,694	3,526	3,471
No. of milk cows (1,000)	10,813	10,329	10,239	10,333	10,277	10,285	10,286	10,252	10,218	10,208
Milk-feed price ratio 5/	1.73	1.83	1.58	1.76	1.80	1.89	1.74	1.52	1.46	1.59
Returns over concentrate 5/ costs ($/cwt milk)	9.23	9.50	8.93	8.99	9.26	9.97	9.26	8.24	8.45	9.75

1/ Manufacturing grade milk. 2/ Prices paid f.o.b. Central States production area, high heat spray process. 3/ Milk equivalent, fat basis. 4/ Ice cream, ice milk, & hard sherbet. 5/ Based on average milk price after adjustment for price support deductions. 6/ Estimated. P = preliminary. -- = not available.

Information contact: Jim Miller (202) 786-1770.

Table 15.—Wool

	Annual			1988						1989
	1986	1987	1988	Jan	Aug	Sept	Oct	Nov	Dec	Jan P
U.S. wool price, Boston 1/ (cts./lb.)	191	265	438	315	450	450	463	475	450	450
Imported wool price, Boston 2/ (cts./lb.)	201	247	372	295	355	362	378	377	391	432
U.S. mill consumption, scoured										
Apparel wool (1,000 lb.)	126,768	129,677	128,325	10,106	9,666	10,547	10,040	9,127	12,097	10,244
Carpet wool (1,000 lb.)	9,960	13,092	15,825	1,323	1,657	1,715	993	971	1,005	800

1/ Wool price delivered at U.S. mills, clean basis, Graded Territory 64's (20.60-22.04 microns) staple 2-3/4" & up. 2/ Wool price delivered at U.S. mills, clean basis, Australian 60/62's, type 64A (24 micron). Duty since 1982 has been 10.0 cents. P = preliminary.

Information contact: John Lawler (202) 786-1840.

Table 16.—Meat Animals

	Annual 1986	Annual 1987	Annual 1988	1988 Jan	1988 Aug	1988 Sept	1988 Oct	1988 Nov	1988 Dec	1989 Jan
Cattle on feed (7 States)										
Number on feed (1,000 head) 1/	7,920	7,643	8,066	8,066	6,855	6,689	7,144	7,934	8,000	7,765
Placed on feed (1,000 head)	20,035	21,040	20,584	1,663	1,660	2,169	2,475	1,680	1,401	1,711
Marketings (1,000 head)	19,263	19,410	19,698	1,754	1,760	1,647	1,601	1,507	1,521	1,672
Other disappearance (1,000 head)	1,049	1,207	1,187	106	66	67	84	107	115	104
Beef steer-corn price ratio, Omaha 2/	31.0	41.0	31.5	36.4	26.2	26.4	26.4	28.4	27.9	28.2
Hog-corn price ratio, Omaha 2/	27.8	32.8	19.6	25.0	17.8	15.9	14.9	14.7	16.2	16.4
Market prices ($/cwt)										
Slaughter cattle										
Choice steers, Omaha	57.75	64.60	69.54	65.00	67.08	67.71	69.13	70.07	71.21	72.35
Utility cows, Omaha	37.19	44.83	46.55	45.90	47.33	48.42	47.71	42.10	45.14	44.88
Choice vealers, S. St. Paul 3/	59.92	78.74	90.23	86.88	87.50	240.42	213.75	239.00	225.94	229.63
Feeder cattle										
Choice, Kansas City, 600-700 lb.	62.79	75.36	83.67	85.00	84.65	84.00	85.81	83.90	86.13	86.00
Slaughter hogs										
Barrows & gilts, 7-markets	51.19	51.69	43.39	44.43	46.10	41.04	38.95	36.45	40.58	41.58
Feeder pigs										
S. Mo. 40-50 lb. (per head)	45.62	46.69	38.88	37.47	27.40	28.30	30.95	29.82	29.17	35.25
Slaughter sheep & lambs										
Lambs, Choice, San Angelo	69.46	78.09	68.84	83.53	56.19	59.50	63.94	65.55	68.83	68.13
Ewes, Good, San Angelo	34.78	38.62	38.88	43.19	38.20	37.38	36.88	38.75	42.08	45.69
Feeder lambs										
Choice, San Angelo	73.14	102.26	90.91	113.63	79.50	78.56	80.38	82.00	84.83	84.38
Wholesale meat prices, Midwest										
Choice steer beef, 600-700 lb.	88.98	97.21	103.34	97.15	101.04	103.15	104.36	104.73	106.20	107.30
Canner & cutter cow beef	71.31	83.70	87.77	88.98	86.51	87.73	85.58	85.32	90.03	91.23
Pork loins, 14-18 lb. 4/	104.78	106.23	97.49	102.43	106.88	97.92	85.33	77.87	93.61	89.35
Pork bellies, 12-14 lb.	65.82	63.11	41.25	51.82	37.46	33.05	34.97	33.64	34.82	36.91
Hams, skinned, 14-17 lb.	80.01	80.96	71.03	66.70	67.16	73.20	78.33	78.06	65.50	65.81
All fresh beef retail price 5/	--	212.64	224.35	213.95	224.32	225.41	230.59	232.94	232.97	234.05
Commercial slaughter (1,000 head)*										
Cattle	37,288	35,647	35,072	2,926	3,206	3,011	2,965	2,799	2,774	2,789
Steers	17,516	17,443	17,341	1,464	1,567	1,437	1,368	1,317	1,354	1,327
Heifers	11,097	10,906	10,755	891	1,039	994	965	827	817	850
Cows	7,961	6,610	6,334	522	542	522	573	601	554	561
Bulls & stags	714	689	642	49	58	58	59	54	49	51
Calves	3,408	2,815	2,504	214	234	215	206	210	210	203
Sheep & lambs	5,635	5,199	5,293	389	462	469	453	432	460	428
Hogs	79,598	81,081	87,738	6,981	7,284	7,715	8,092	8,132	7,942	7,332
Commercial production (mil. lb.)										
Beef	24,213	23,405	23,419	1,946	2,162	2,042	2,006	1,875	1,872	1,896
Veal	509	416	387	32	35	33	34	33	32	32
Lamb & mutton	331	309	329	24	28	28	28	27	29	27
Pork	13,998	14,312	15,614	1,244	1,281	1,359	1,442	1,462	1,424	1,310

	Annual 1986	Annual 1987	Annual 1988	1987 III	1987 IV	1988 I	1988 II	1988 III	1988 IV	1989 I
Cattle on feed (13 States)										
Number on feed (1,000 head) 1/	9,754	9,245	9,769	8,666	8,992	9,769	9,385	9,001	8,591	9,408
Placed on feed (1,000 head)	23,583	24,894	24,353	6,590	6,718	5,824	5,893	5,986	6,650	--
Marketings (1,000 head)	22,856	22,991	23,339	6,022	5,603	5,823	5,859	6,171	5,486	7/5,728
Other disappearance (1,000 head)	1,236	1,379	1,375	242	338	385	418	225	347	--
Hogs & pigs (10 States) 6/										
Inventory (1,000 head) 1/	41,100	39,690	42,995	40,995	43,150	42,995	41,345	44,065	45,000	43,010
Breeding (1,000 head) 1/	5,258	5,110	5,510	5,340	5,310	5,510	5,520	5,630	5,460	5,315
Market (1,000 head) 1/	35,842	34,580	37,485	35,615	37,840	37,485	35,825	38,435	39,540	37,695
Farrowings (1,000 head)	8,223	8,838	9,316	2,284	2,260	2,123	2,578	2,359	2,256	7/2,123
Pig crop (1,000 head)	63,835	68,888	71,848	17,692	17,572	16,489	20,176	18,007	17,177	--

1/ Beginning of period. 2/ Bushels of corn equal in value to 100 pounds live weight. 3/ Per head starting September 1988. 4/ Prior to 1984, 8-14 lb.; 1984 & 1985, 14-17 lb.; beginning 1986, 14-18 lb. 5/ New series estimating the composite price of all beef grades & ground beef sold by retail stores. This new series is in addition to, but does not replace, the series for the retail price of Choice beef that appears in table 8. 6/ Quarters are Dec. of preceding year-Feb. (I), Mar.-May (II), June-Aug. (III), and Sept.-Nov. (IV). 7/ Intentions. *Classes estimated. -- = not available.

Information contacts: Ron Gustafson or Leland Southard (202) 786-1285.

Table 17.—Supply & Utilization[1,2]

	Area: Set aside 3/	Area: Planted	Area: Harvested	Yield	Production	Total supply 4/	Feed and residual	Other domestic use	Exports	Total use	Ending stocks	Farm price 5/
	Mil. acres			Bu./acre	Mil. bu.							$/bu.
Wheat												
1983/84	30.0	76.4	61.4	39.4	2,420	3,939	369	742	1,429	2,540	1,399	3.51
1984/85	18.3	79.2	66.9	38.8	2,595	4,003	405	749	1,424	2,578	1,425	3.39
1985/86	18.8	75.6	64.7	37.5	2,425	3,866	279	767	915	1,961	1,905	3.08
1986/87*	20.2	72.1	60.7	34.4	2,092	4,018	413	780	1,004	2,197	1,821	2.42
1987/88*	27.9	65.8	56.0	37.7	2,107	3,945	288	804	1,592	2,684	1,261	2.57
1988/89*	30.1	65.5	53.2	34.1	1,811	3,094	230	830	1,500	2,560	534	3.65-3.80
	Mil. acres			Lb./acre	Mil. cwt (rough equiv.)							$/cwt
Rice												
1983/84	1.74	2.19	2.17	4,598	99.7	172.1	--	6/54.9	70.3	125.0	46.9	8.57
1984/85	.79	2.83	2.80	4,954	138.8	187.3	--	6/60.5	62.1	122.6	64.7	8.04
1985/86	1.24	2.51	2.49	5,414	134.9	201.8	--	6/65.8	58.7	124.5	77.3	6.53
1986/87*	1.48	2.38	2.36	5,651	133.4	213.3	--	6/77.7	84.2	161.9	51.4	3.75
1987/88*	1.51	2.36	2.33	5,555	129.6	184.0	--	6/80.4	72.2	152.6	31.4	7.27
1988/89*	.93	2.93	2.90	5,511	159.5	194.6	--	6/82.2	74.0	156.2	38.4	6.00-7.00
	Mil. acres			Bu./acre	Mil. bu.							$/bu.
Corn												
1983/84	32.2	60.2	51.5	81.1	4,175	7,700	3,818	975	1,901	6,694	1,006	3.21
1984/85	3.9	80.5	71.9	106.7	7,674	8,684	4,079	1,091	1,865	7,036	1,648	2.63
1985/86	5.4	83.4	75.2	118.0	8,877	10,536	4,095	1,160	1,241	6,496	4,040	2.23
1986/87*	13.5	76.7	69.2	119.3	8,250	12,291	4,714	1,192	1,504	7,410	4,882	1.50
1987/88*	25.6	65.7	59.2	119.4	7,072	11,958	4,738	1,229	1,732	7,699	4,259	1.94
1988/89*	23.6	67.6	58.2	84.6	4,921	9,185	4,300	1,225	2,000	7,525	1,660	2.40-2.70
	Mil. acres			Bu./acre	Mil. bu.							$/bu.
Sorghum												
1983/84	5.7	11.9	10.0	48.7	488	927	385	10	245	640	287	2.74
1984/85	.6	17.3	15.4	56.4	866	1,154	539	18	297	854	300	2.32
1985/86	.9	18.3	16.8	66.8	1,120	1,420	664	28	178	869	551	1.93
1986/87*	3.0	15.3	13.9	67.7	938	1,489	535	12	198	746	743	1.37
1987/88*	5.2	11.8	10.6	69.7	739	1,483	564	25	231	820	663	1.70
1988/89*	5.8	10.4	9.1	63.8	578	1,240	515	20	275	810	430	2.20-2.50
	Mil. acres			Bu./acre	Mil. bu.							$/bu.
Barley												
1983/84	1.1	10.4	9.7	52.3	509	733	282	170	92	544	189	2.47
1984/85	.5	12.0	11.2	53.4	599	799	304	170	77	551	247	2.29
1985/86	.7	13.2	11.6	51.0	591	848	333	169	22	523	325	1.98
1986/87*	2.1	13.1	12.0	50.8	611	944	298	174	137	608	336	1.61
1987/88*	4.0	11.0	10.1	52.7	530	879	258	174	126	558	321	1.81
1988/89*	4.8	9.7	7.5	38.6	291	624	240	175	65	480	144	2.75-2.85
	Mil. acres			Bu./acre	Mil. bu.							$/bu.
Oats												
1983/84	.3	20.3	9.1	52.6	477	727	466	78	2	546	181	1.62
1984/85	.1	12.4	8.2	58.0	474	689	433	74	1	509	180	1.67
1985/86	.1	13.3	8.2	63.7	521	728	460	82	2	544	184	1.23
1986/87*	.6	14.7	6.9	56.3	386	603	395	73	3	471	133	1.21
1987/88*	1.3	18.0	6.9	54.0	374	553	361	79	1	441	112	1.56
1988/89*	1.2	13.9	5.6	39.1	219	391	215	86	1	302	89	2.60-2.75
	Mil. acres			Bu./acre	Mil. bu.							$/bu.
Soybeans												
1983/84	0	63.8	62.5	26.2	1,636	1,981	7/79	983	743	1,805	176	7.83
1984/85	0	67.8	66.1	28.1	1,861	2,037	7/93	1,030	598	1,721	316	5.84
1985/86	0	63.1	61.6	34.1	2,099	2,415	7/86	1,053	740	1,879	536	5.05
1986/87*	0	60.4	58.3	33.3	1,940	2,476	7/104	1,179	757	2,040	436	4.78
1987/88*	0	58.0	57.0	33.7	1,923	2,359	7/81	1,174	802	2,057	302	5.88
1988/89*	0	58.9	57.4	26.8	1,539	1,841	7/96	1,050	550	1,696	145	7.00-8.00
					Mil. lbs.							8/ Cts./lb.
Soybean oil												
1983/84	--	--	--	--	10,872	12,133	--	9,588	1,824	11,412	721	30.60
1984/85	--	--	--	--	11,468	12,209	--	9,917	1,660	11,577	632	29.50
1985/86	--	--	--	--	11,617	12,257	--	10,053	1,257	11,310	947	18.00
1986/87*	--	--	--	--	12,783	13,745	--	10,833	1,187	12,020	1,725	15.40
1987/88*	--	--	--	--	9/12,974	14,895	--	10,930	1,873	12,803	2,092	22.65
1988/89*	--	--	--	--	9/ 11,548	13,840	--	10,800	1,300	12,100	1,740	21.00-23.00
					1,000 tons							10/ $/ton
Soybean meal												
1983/84	--	--	--	--	22,756	23,230	--	17,615	5,360	22,975	255	188
1984/85	--	--	--	--	24,529	24,784	--	19,480	4,917	24,397	387	125
1985/86	--	--	--	--	24,951	25,338	--	19,090	6,036	25,126	212	155
1986/87*	--	--	--	--	27,758	27,970	--	20,387	7,343	27,730	240	163
1987/88*	--	--	--	--	28,060	28,300	--	21,276	6,871	28,147	153	222
1988/89*	--	--	--	--	24,647	24,800	--	19,500	5,000	24,500	300	230-250

See footnotes at end of table.

Table 17.—Supply & Utilization, continued

	Area: Set aside 3/	Area: Planted	Area: Harvested	Yield	Production	Total supply 4/	Feed and residual	Other domestic use	Exports	Total use	Ending stocks	Farm price 5/
	Mil. acres			lb./acre	Mil. bales							Cts./lb.
Cotton 11/												
1983/84	6.8	7.9	7.3	508	7.8	15.7	--	5.9	6.8	12.7	2.8	65.30
1984/85	2.5	11.1	10.4	600	13.0	15.8	--	5.5	6.2	11.8	4.1	58.70
1985/86	3.6	10.7	10.2	630	13.4	17.6	--	6.4	2.0	8.4	9.4	56.50
1986/87*	3.4	10.0	8.5	552	9.7	19.1	--	7.4	6.7	14.1	5.0	52.40
1987/88*	3.2	10.4	10.0	706	14.8	19.8	--	7.6	6.6	14.2	5.8	64.30
1988/89*	1.6	12.5	11.9	623	15.4	21.2	--	7.1	5.5	12.6	8.7	--

*March 9, 1989 Supply and Demand Estimates. 1/ Marketing year beginning June 1 for wheat, barley, & oats, August 1 for cotton & rice, September 1 for soybeans, corn, & sorghum, October 1 for soymeal & soyoil. 2/ Conversion factors: Hectare (ha.) = 2.471 acres, 1 metric ton = 2204.622 pounds, 36.7437 bushels of wheat or soybeans, 39.3679 bushels of corn or sorghum, 45.9296 bushels of barley, 68.8944 bushels of oats, 22.046 cwt of rice, and 4.59 480-pound bales of cotton. 3/ Includes diversion, PIK, & acreage reduction programs. 4/ Includes imports. 5/ Market average prices do not include an allowance for loans outstanding & Government purchases.
6/ Residual included in domestic use. 7/ Includes seed. 8/ Average of crude soybean oil, Decatur. 9/ Includes 196 million pounds in imports for 1987/88 & 300 million in 1988/89. 10/ Average of 44 percent, Decatur. 11/ Upland & extra long staple. Stock estimates based on Census Bureau data, resulting in an unaccounted difference between supply & use estimates & changes in ending stocks. -- = not available.

Information contact: Commodity Economics Division, Crops Branch (202) 786-1840.

Table 18.—Food Grains

	Marketing year 1/ 1984/85	1985/86	1986/87	1987/88	1988 Jan	Sept	Oct	Nov	Dec	1989 Jan
Wholesale prices										
Wheat, No. 1 HRW, Kansas City ($/bu.) 2/	3.74	3.28	2.72	2.96	3.20	4.05	4.13	4.18	4.25	4.40
Wheat, DNS, Minneapolis ($/bu.) 2/	3.70	3.25	2.62	2.92	3.12	4.16	4.17	4.09	4.20	4.42
Rice, S.W. La. ($/cwt) 3/	17.98	16.11	10.25	19.25	20.60	16.10	14.50	14.50	14.10	14.00
Wheat										
Exports (mil. bu.)	1,424	915	1,004	1,592	118	130	102	98	109	--
Mill grind (mil. bu.)	676	703	755	753	59	65	69	69	63	--
Wheat flour production (mil. cwt)	301	314	335	336	26	29	31	31	28	--
Rice										
Exports (mil. cwt, rough equiv.)	62.1	58.7	84.2	72.2	5.9	5.4	5.5	7.5	8.9	--

	Marketing year 1/ 1985/86	1986/87	1987/88.	1987 Mar-May	Jun-Aug	Sept-Nov	1988 Dec-Feb	Mar-May	Jun-Aug	Sept-Nov
Wheat										
Stocks, beginning (mil. bu.)	1,425	1,905	1,821	2,250.4	1,820.9	2,976.5	2,500.6	1,923.5	1,260.8	2,253.6
Domestic use										
Food (mil. bu.)	674	696	719	174.3	179.3	191.1	168.6	180.0	183.0	190.0
Seed, feed & residual (mil. bu.) 4/	372	497	378	45.7	367.8	-18.6	-2.0	25.6	280.7	28.9
Exports (mil. bu.)	915	1,004	1,592	216.8	409.9	308.5	413.1	460.6	363.4	330.1

1/ Beginning June 1 for wheat & August 1 for rice. 2/ Ordinary protein. 3/ Long grain, milled basis. 4/ Residual includes feed use. -- = not available.

Information contacts: Ed Allen & Janet Livezey (202) 786-1840.

Table 19.—Cotton

	Marketing year 1/ 1984/85	1985/86	1986/87	1987/88	1988 Jan	Sept	Oct	Nov	Dec	1989 Jan
U.S. price, SLM, 1-1/16 in. (cts./lb.) 2/	60.5	60.0	53.2	63.1	59.7	51.3	52.2	53.4	54.8	55.7
Northern Europe prices										
Index (cts./lb.) 3/	69.2	48.9	62.0	72.7	72.2	56.8	57.6	58.6	61.3	63.1
U.S. M 1-3/32 in. (cts./lb.) 4/	73.9	64.8	61.8	76.3	72.8	60.5	62.1	63.9	65.8	67.2
U.S. mill consumpt. (1,000 bales)	5,545	6,399	7,452	7,617	621	618	588	581	496	629
Exports (thou bales)	6,201	1,969	6,684	6,582	663	265	235	398	670	644
Stocks, beginning (1,000 bales)	2,775	4,102	9,348	5,026	12,899	5,655	6,285	10,196	14,155	15,635

1/ Beginning August 1. 2/ Average spot market. 3/ Liverpool Outlook (A) index; average of five lowest priced of 11 selected growths. 4/ Memphis territory growths.

Information contact: Bob Skinner (202) 786-1840.

Table 20.—Feed Grains

	Marketing year 1/				1988					1989
	1984/85	1985/86	1986/87	1987/88	Jan	Sept	Oct	Nov	Dec	Jan
Wholesale prices										
Corn, no. 2 yellow, Chicago ($/bu.)	2.79	2.35	1.64	2.14	1.95	2.79	2.81	2.65	2.69	2.74
Sorghum, no. 2 yellow, Kansas City ($/cwt)	4.46	3.72	2.73	3.40	3.05	4.27	4.17	4.00	4.23	4.24
Barley, feed, Duluth ($/bu.) 2/	2.09	1.53	1.44	1.78	1.72	2.24	2.32	2.27	2.14	2.24
Barley, malting, Minneapolis ($/bu.)	2.55	2.24	1.89	2.04	2.02	4.40	4.39	4.14	3.82	4.14
Exports 3/										
Corn (mil. bu.)	1,865	1,241	1,504	1,732	134.3	154.4	174.0	151.0	173.5	--
Feed grains (mil. metric tons) 4/	56.6	36.6	46.3	52.6	4.1	4.8	4.9	4.4	5.4	--

	Marketing year 1/				1987		1988			
	1984/85	1985/86	1986/87	1987/88	Jun-Aug	Sept-Nov	Dec-Feb	Mar-May	Jun-Aug	Sept-Nov
Corn										
Stocks, beginning (mil. bu.)	1,006	1,648	4,040	4,882	6,332	4,882	9,769	7,635	5,836	4,260
Domestic use										
Feed (mil. bu.)	4,079	4,095	4,714	4,746	768	1,488	1,444	960	839	1,389
Food, seed, ind. (mil. bu.)	1,091	1,160	1,192	1,224	315	292	282	330	323	289
Exports (mil. bu.)	1,865	1,241	1,504	1,720	368	398	408	514	414	453.0
Total use (mil. bu.)	7,036	6,496	7,410	7,690	1,451	2,178	2,134	1,804	1,577	2,188.5

1/ September 1 for corn & sorghum; June 1 for oats & barley. 2/ Beginning March 1987 reporting point changed from Minneapolis to Duluth. 3/ Excludes products. 4/ Aggregated data for corn, sorghum, oats, & barley. -- = not available.

Information contact: James Cole (202) 786-1840.

Table 21.—Fats & Oils

	Marketing year *				1987	1988				
	1984/85	1985/86	1986/87	1987/88	Dec	Aug	Sept	Oct	Nov	Dec
Soybeans										
Wholesale price, no. 1 yellow, Chicago ($/bu.)	5.88	5.20	5.03	6.67	5.85	8.25	8.33	7.82	7.57	7.74
Crushings (mil. bu.)	1,030.5	1,052.8	1,178.8	1,174.5	110.8	78.3	79.9	94.4	101.0	100.7
Exports (mil. bu.)	598.2	740.7	756.9	801.6	81.1	37.2	26.9	50.2	61.3	69.3
Stocks, beginning (mil. bu.)	175.7	316.0	536.0	436.0	155.5	66.2	59.7	61.4	136.6	147.4
Soybean oil										
Wholesale price, crude, Decatur (cts./lb.)	29.52	18.02	15.36	22.92	19.00	27.16	25.55	23.42	21.55	22.16
Production (mil. lb.)	11,467.9	11,617.3	12,783.1	12,974.5	1,208.1	878.6	901.3	1,047.4	1,108.5	1,110.4
Domestic disap. (mil. lb.)	9,888.5	10,045.9	10,820.2	10,734.1	857.3	791.5	838.2	893.4	741.1	766.0
Exports (mil. lb.)	1,659.9	1,257.3	1,184.5	1,873.2	134.0	78.1	183.2	200.1	110.6	119.9
Stocks, beginning (mil. lb.)	720.5	632.5	946.6	1,725.0	1,833.7	2,203.3	2,212.4	2,092.2	2,046.2	2,303.0
Soybean meal										
Wholesale price, 44% protein, Decatur ($/ton)	125.46	154.88	162.61	221.90	214.80	255.10	264.90	259.75	248.20	246.00
Production (1,000 ton)	24,529.3	24,951.3	27,758.8	28,060.2	2,649.3	1,872.5	1,897.8	2,235.5	2,399.4	2,390.0
Domestic disap. (1,000 ton)	19,481.3	19,117.2	20,387.4	21,275.9	2,021.0	1,759.7	1,567.9	1,609.4	1,962.7	1,737.9
Exports (1,000 ton)	4,916.5	6,009.3	7,343.0	6,871.0	643.9	285.6	441.0	511.8	409.0	594.1
Stocks, beginning (1,000 ton)	255.4	386.9	211.7	240.2	311.8	437.4	264.6	153.5	267.8	295.6
Margarine, wholesale price, Chicago, white (cts./lb.)	55.5	51.2	40.3	40.3	44.20	58.06	57.33	56.33	55.39	55.26

* Beginning September 1 for soybeans; October 1 for soymeal & oil; calendar year for margarine.

Information contacts: Roger Hoskin (202) 786-1840, Tom Bickerton (202) 786-1824.

Table 22.—Farm Programs, Price Supports, Participation & Payment Rates

	Target price	Loan rate	Findley loan rate	Payment rates: Deficiency	Payment rates: Paid land diversion	Payment rates: PIK	Base acres	Program 1/	Participation rate 2/
			$/bu.			Percent 3/	Mil. acres		Percent of base
Wheat									
1983/84	4.30	3.65		.65	2.70	95	90.9	15/5/10-30	78/78/51
1984/85	4.38	3.30		1.00	2.70	85	94.0	20/10/10-20	60/60/20
1985/86	4.38	3.30		1.08	2.70		94.0	20/10/0	73
1986/87 4/	4.38	3.00	2.40	1.98	2.00	1.10	92.2	22.5/2.5/5-10	85/85/21
1987/88	4.38	2.85	2.28	1.78			91.7	27.5/0/0	87
1988/89	4.23	2.76	2.21	1.53			91.8	27.5/0/0	83
1989/90	4.10	2.58	2.06	6/ .50				10/0/0	
			$/cwt						
Rice									
1983/84	11.40	8.14		2.77	2.70	80	3.95	15/5/10-30	98/98/87
1984/85	11.90	8.00		3.76			4.16	25/0/0	85
1985/86	11.90	8.00	5/3.16	3.90	3.50		4.23	20/15/0	90
1986/87 4/	11.90	7.20	5/3.82	4.70			4.20	35/0/0	95
1987/88	11.66	6.84	5/5.72	4.82			4.18	35/0/0	95
1988/89	11.15	6.63	5/4.80	1.65			4.17	25/0/0	92
1989/90	10.80								
			$/bu.						
Corn									
1983/84	2.86	2.65		0	1.50	80	82.6	10/10/10-30	71/71/60
1984/85	3.03	2.55		.43			80.8	10/0/0	54
1985/86	3.03	2.55		.48			84.2	10/0/0	69
1986/87 4/	3.03	2.40	1.92	1.11	.73		81.9	17.5/2.5/0	86
1987/88	3.03	2.28	1.82	1.09	2.00		83.3	20/15/0	90
1988/89	2.93	2.21	1.77	6/ 1.10	1.75			20/10/0; 0/92	90
1989/90	2.84	2.06	1.65	6/ .89				10/0/0; 0/92	
			$/bu.						
Sorghum									
1983/84	2.72	2.52		0	1.50	80	18.0	7/ [same]	72/72/53
1984/85	2.88	2.42		.46			18.2		42
1985/86	2.88	2.42		.46			19.3		55
1986/87 4/	2.88	2.28	1.82	1.06	.65		19.0		75
1987/88	2.88	2.18	1.74	1.14	1.90		17.4		83/42
1988/89	2.78	2.10	1.68	1.08	1.65		17.0		81
1989/90	2.70	1.96	1.57	6/ .90					
			$/bu.						
Barley									
1983/84	2.60	2.16		.21	1.00		11.0	7/ [same]	55/55/0
1984/85	2.60	2.08		.26			11.6		44
1985/86	2.60	2.08		.52			13.3		57
1986/87 4/	2.60	1.95	1.56	.99	.57		12.4		72
1987/88	2.60	1.86	1.49	.79	1.60		12.9		84
1988/89	2.51	1.80	1.44	.76	1.40		12.6		78
1989/90	2.43	1.68	1.34	6/ .23					
			$/bu.						
Oats									
1983/84	1.60	1.36		.11	.75		9.8	7/ [same]	20/20/0
1984/85	1.60	1.31		0			9.8		14
1985/86	1.60	1.31		.29			9.4		14
1986/87 4/	1.60	1.24	.99	.39	.36		9.5		37
1987/88	1.60	1.18	.94	.20	.80		8.7		45
1988/89	1.55	1.13	.90	10/ .30			8.0	5/0/0; 0/92	30
1989/90	1.50	1.06	.85					5/0/0; 0/92	
			$/bu.						
Soybeans 8/									
1983/84		5.02							
1984/85		5.02							
1985/86		5.02							
1986/87 4/		4.77							
1987/88		4.77							
1988/89		4.77							
1989/90 9/									
			Cts./lb.						
Upland cotton									
1983/84	76.0	55.00		12.10	25.00	85	15.4	20/5/10-30	93/93/77
1984/85	81.0	55.00		18.60			15.6	25/0/0	70
1985/86	81.0	57.30		23.70	30.00		15.8	20/10/0	82/0/0
1986/87 4/	81.0	55.00	10/44.00	26.00			15.5	25/0/0	93
1987/88	79.4	52.25	11/	17.3			14.5	25/0/0	92
1988/89	75.9	51.80		16.00			14.6	12.5/0/0	88
1989/90	73.4	50.00					14.3	25/0/0	

1/ Percentage of base acres that farmers participating in Acreage Reduction Programs/Paid Land Diversion/PIK were required to devote to conserving uses to receive program benefits. In addition to the percentages shown for 1983/84, farmers had the option of submitting bids to retire their entire base acreages. 2/ Percentage of base acres enrolled in Acreage Reduction Programs/Paid Land Diversion/PIK. 3/ Percent of program yield, except 1986/87 wheat, which is dollars per bushel. 1983 & 1984 PIK rates apply only to the 10-30 and 10-20 portions, respectively. 4/ Rates for payments received in cash were reduced by 4.3 percent in 1986/87 due to Gramm-Rudman-Hollings. 5/ Annual average world market price. 6/ Guaranteed to farmers signed up for 0/92. 7/ The sorghum, oats, & barley programs were the same as for corn each year except 1983/84, when PIK was not offered on barley & oats, & in 1988 for oats. 8/ There are no target prices, acreage programs, or payment rates for soybeans. 9/ Loan rate is not to be announced prior to August 1, 1989. 10/ Loan repayment rate. 11/ Loans may be repaid at the lower of the loan rate or world market prices.

Information contact: James Cole (202) 786-1840.

Table 23.—Fruit

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988 F
Citrus 1/												
Production (1,000 ton)	14,255	13,329	16,484	15,105	12,057	13,608	10,792	10,525	11,051	11,968	12,641	13,084
Per capita consumpt. (lbs.) 2/	115.1	107.5	108.4	112.6	104.4	109.3	119.9	102.9	109.1	118.0	114.9	--
Noncitrus 3/												
Production (1,000 tons)	12,274	12.460	13,689	15,152	12,961	14,217	14,154	14,292	14,189	13,917	16,008	15,271
Per capita consumpt. (lbs.) 2/	84.5	83.0	85.7	87.3	88.0	89.0	88.9	93.7	92.3	95.7	101.9	--

	1988											1989
	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan
F.o.b. shipping point prices												
Apples ($/carton) 4/	11.50	11.08	10.96	10.98	14.21	23.87	23.05	20.45	13.80	12.15	12.63	10.78
Pears ($/box) 5/	11.18	8.94	12.88	15.14	17.50	--	--	--	--	12.48	12.33	9.70
Oranges ($/box) 6/	6.30	6.24	6.79	8.25	8.42	6.41	4.90	4.17	5.48	5.82	6.50	6.20
Grapefruit ($/box) 6/	5.45	5.02	4.92	4.53	3.36	4.85	4.09	7.34	7.57	4.77	4.71	3.72
Stocks, ending												
Fresh apples (mil. lbs.)	2,417.4	1,584.1	1,092.7	552.2	248.1	95.0	5.1	1,857.7	4,601.8	3,904.3	3,265.8	2,659.6
Fresh pears (mil. lbs.)	148.4	99.7	49.2	17.9	2.7	--	117.6	434.0	425.7	368.3	295.5	235.4
Frozen fruits (mil. lbs.)	720.1	634.6	593.3	548.5	657.3	864.0	981.4	997.5	1,116.0	1,011.8	937.3	834.3
Frozen orange juice (mil. lbs.)	1,073.1	1,004.1	1,018.7	1,120.1	1,154.7	1,001.8	862.5	693.1	639.7	587.7	721.6	947.1

1/ Crop year beginning with year indicated. 2/ Per capita consumption for total U.S. population, including military consumption of both fresh and processed fruit in fresh weight equivalent. 3/ Calendar year. 4/ Red delicious, Washington, extra fancy, carton tray pack, 80-113's. 5/ D'Anjou, Washington, standard box wrapped, U.S. no. 1, 90-135's. 6/ U.S. equivalent on-tree returns.
F = forecast. -- = not available.

Information contact: Ben Huang (202) 786-1885.

Table 24.—Vegetables

	Calendar year									
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Production										
Total vegetables (1,000 cwt) 1/	413,925	381,370	379,123	431,515	403,320	457,392	453,769	445,436	464,141	452,731
Fresh (1,000 cwt) 1/ 2/	190,859	190,228	194,694	207,924	197,919	217,132	217,932	216,267	219,689	225,784
Processed (tons) 3/	11,153,300	9,557,100	9,221,460	11,179,590	10,270,050	12,013,020	11,791,860	11,616,560	12,222,620	11,347,370
Mushrooms (1,000 lbs.)	470,069	469,576	517,146	490,826	561,531	595,681	587,956	614,393	631,690	--
Potatoes (1,000 cwt)	342,447	302,857	338,591	355,131	333,911	362,612	407,109	361,511	385,462	349,973
Sweetpotatoes (1,000 cwt)	13,370	10,953	12,799	14,833	12,083	12,986	14,853	12,674	12,064	11,832
Dry edible beans (1,000 cwt)	20,552	26,729	32,751	25,563	15,520	21,070	22,175	22,886	25,909	19,230

	1988												1989
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan
Shipments													
Fresh (1,000 cwt) 4/	17,690	23,141	18,271	18,927	26,488	36,998	21,631	21,791	15,215	16,475	20,999	16,579	18,006
Potatoes (1,000 cwt)	11,759	12,702	8,890	14,970	12,356	12,791	7,461	10,014	9,963	9,958	13,796	9,051	9,282
Sweetpotatoes (1,000 cwt)	354	343	366	218	174	127	91	212	262	305	876	460	246

1/ 1983 data are not comparable with 1984 & 1985. 2/ Estimate reinstated for asparagus with the 1984 crop; all other years also include broccoli, carrots, cauliflower, celery, sweet corn, lettuce, honeydews, onions, & tomatoes. 3/ Estimates reinstated for cucumbers with the 1984 crop; all other years also include snap beans, sweet corn, green peas, & tomatoes. 4/ Includes snap beans, broccoli, cabbage, carrots, cauliflower, celery, sweet corn, cucumbers, eggplant, lettuce, onions, bell peppers, squash, tomatoes, cantaloupes, honeydews, & watermelons. -- = not available.

Information contacts: Shannon Hamm or Cathy Greene (202) 786-1884.

Table 25.—Other Commodities

	Annual					1987	1988			
	1984	1985	1986	1987	1988	Oct-Dec	Jan-Mar	Apr-June	July-Sept	Oct-Dec
Sugar										
Production 1/	5,890	5,969	6,257	7,309	7,069	3,653	2,082	772	642	3,573
Deliveries 1/	8,454	8,035	7,786	8,167	8,188	2,112	1,951	1,983	2,147	2,107
Stocks, ending 1/	3,005	3,126	3,225	3,195	3,117	3,195	3,567	2,467	1,316	3,117
Coffee										
Composite green price N.Y. (cts./lb.)	142.95	137.46	185.18	109.14	115.59	116.12	121.98	121.44	114.20	120.75
Imports, green bean equiv. (mil. lbs.) 2/	2,411	2,550	2,596	2,638	2,072	640	584	422	594	472

	Annual			1987	1988					
	1985	1986	1987	Dec	July	Aug	Sept	Oct	Nov	Dec
Tobacco										
Prices at auctions 3/										
Flue-cured ($/lb.)	1.72	1.52	--	--	NQ	1.47	1.67	1.71	1.61	--
Burley ($/lb.)	1.59	1.57	--	1.58	NQ	NQ	NQ	NQ	1.63	1.62
Domestic consumption 4/										
Cigarettes (bil.)	594.0	584.0	577.0	48.5	31.4	34.4	51.9	46.9	56.3	--
Large cigars (mil.)	3,226	3,090	2,760	220.2	181.7	234.4	245.4	217.4	207.3	--

1/ 1,000 short tons, raw value. Quarterly data shown at end of each quarter. 2/ Net imports of green & processed coffee. 3/ Crop year July-June for flue-cured, Oct.-Sept. for burley. 4/ Taxable removals. P = preliminary.
-- = not available. NQ = no quote.

Information contacts: sugar, Peter Buzzanell (202) 786-1888, coffee, Fred Gray (202) 786-1888, tobacco, Verner Grise (202) 786-1890.

Table 26.—World Supply & Utilization of Major Crops, Livestock, & Products

	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88 P	1988/89 F
				Million units			
Wheat							
Area (hectares)	237.3	228.8	231.0	229.3	228.1	219.8	219.1
Production (metric tons)	477.3	489.3	511.9	499.8	530.4	503.6	499.6
Exports (metric tons) 1/	98.7	102.0	107.0	85.0	90.7	105.4	97.7
Consumption (metric tons) 2/	460.1	474.1	493.0	495.9	522.2	534.1	536.6
Ending stocks (metric tons) 3/	130.0	145.2	164.0	167.9	176.1	145.6	108.7
Coarse grains							
Area (hectares)	338.7	335.1	334.7	341.2	337.0	323.6	326.4
Production (metric tons)	783.9	687.6	815.8	843.8	835.6	791.9	721.3
Exports (metric tons) 1/	90.0	93.4	100.4	83.2	84.1	83.3	95.1
Consumption (metric tons) 2/	753.3	758.8	782.6	779.5	810.8	813.5	804.7
Ending stocks (metric tons) 3/	181.4	110.7	143.9	208.1	232.9	211.3	127.8
Rice, milled							
Area (hectares)	140.6	144.2	144.3	144.9	145.1	141.2	144.6
Production (metric tons)	286.5	307.9	318.8	320.0	318.8	311.1	324.2
Exports (metric tons) 4/	11.9	12.6	11.3	12.5	12.7	12.1	12.1
Consumption (metric tons) 2/	286.5	304.5	310.6	320.7	323.0	318.9	324.5
Ending stocks (metric tons) 3/	43.3	46.6	54.9	54.2	50.0	42.2	41.9
Total grains							
Area (hectares)	716.6	708.1	710.0	715.4	710.2	684.6	690.1
Production (metric tons)	1,547.7	1,484.8	1,646.5	1,663.6	1,684.8	1,606.6	1,545.1
Exports (metric tons) 1/	200.6	208.0	218.7	180.7	187.5	200.8	204.9
Consumption (metric tons) 2/	1,499.9	1,537.4	1,586.2	1,596.1	1,656.0	1,666.5	1,665.8
Ending stocks (metric tons) 3/	354.7	302.5	362.8	430.2	459.0	399.1	278.4
Oilseeds							
Crush (metric tons)	143.5	135.8	150.6	155.0	161.4	165.8	166.5
Production (metric tons)	178.2	165.0	191.0	196.0	194.3	206.6	198.6
Exports (metric tons)	35.2	33.0	33.1	34.6	37.7	39.4	33.7
Ending stocks (metric tons)	20.5	15.7	21.1	26.8	23.3	24.0	17.4
Meals							
Production (metric tons)	98.1	92.5	101.8	104.9	110.3	113.8	112.6
Exports (metric tons)	31.6	29.7	32.3	34.4	36.7	36.2	37.1
Oils							
Production (metric tons)	43.4	42.1	46.2	49.5	50.5	52.6	53.3
Exports (metric tons)	14.0	13.7	15.6	16.4	16.9	17.3	17.5
Cotton							
Area (hectares)	31.4	31.0	33.9	31.9	29.9	32.2	34.2
Production (bales)	68.1	65.6	88.2	79.6	70.4	80.6	84.4
Exports (bales)	19.5	19.2	20.2	20.2	26.0	23.6	24.4
Consumption (bales)	68.3	68.3	70.0	75.8	82.4	83.3	83.1
Ending stocks (bales)	25.2	24.0	42.4	47.2	34.5	32.2	33.5
	1983	1984	1985	1986	1987	1988 F	1989 F
Red meat							
Production (metric tons)	97.5	99.6	103.5	106.4	108.8	109.9	110.4
Consumption (metric tons)	95.8	97.6	101.5	105.3	107.1	108.6	109.1
Exports (metric tons) 1/	5.9	5.9	6.2	6.6	6.6	6.7	6.8
Poultry							
Production (metric tons)	24.4	25.2	26.2	27.4	29.2	30.1	31.2
Consumption (metric tons)	24.3	24.8	26.0	27.0	28.8	29.7	30.8
Exports (metric tons) 1/	1.3	1.3	1.2	1.3	1.5	1.5	1.5
Dairy							
Milk production (metric tons)	413.0	413.5	419.1	426.8	427.1	428.7	433.5

1/ Excludes intra-EC trade. 2/ Where stocks data not available (excluding USSR), consumption includes stock changes. 3/ Stocks data are based on differing marketing years & do not represent levels at a given date. Data not available for all countries; includes estimated change in USSR grain stocks but not absolute level. 4/ Calendar year data. 1983 data correspond with 1982/83, etc. P = preliminary. F = forecast.

Information contacts: Frederic Surls (202) 786-1824; red meat & poultry, Linda Bailey (202) 786-1286; dairy, Sara Short (202) 786-1769.

Table 27.—Prices of Principal U.S. Agricultural Trade Products

	Annual 1986	Annual 1987	Annual 1988	1988 Jan	1988 Aug	1988 Sept	1988 Oct	1988 Nov	1988 Dec	1989 Jan
Export commodities										
Wheat, f.o.b. vessel, Gulf ports ($/bu.)	3.19	3.11	3.97	3.53	4.10	4.36	4.42	4.48	4.55	4.75
Corn, f.o.b. vessel, Gulf ports ($/bu.)	2.27	1.95	2.73	2.22	3.03	3.10	3.08	2.90	3.00	3.03
Grain sorghum, f.o.b. vessel, Gulf ports ($/bu.)	2.16	1.88	2.52	2.06	2.78	2.81	2.76	2.61	2.79	2.81
Soybeans, f.o.b. vessel, Gulf ports ($/bu.)	5.45	5.55	7.81	6.45	8.77	8.73	8.10	7.84	8.07	8.09
Soybean oil, Decatur (cts./lb.)	16.36	15.85	23.52	21.64	26.74	25.06	23.13	21.31	21.75	20.98
Soybean meal, Decatur ($/ton)	157.62	175.57	234.75	193.30	257.46	265.02	258.06	248.95	246.48	248.76
Cotton, 8-market avg. spot (cts./lb.)	53.47	64.35	57.25	59.70	55.20	51.26	52.20	54.40	54.85	55.67
Tobacco, avg. price at auction (cts./lb.)	153.96	144.34	148.95	142.72	144.44	156.75	159.62	162.15	162.38	162.27
Rice, f.o.b. mill, Houston ($/cwt)	14.60	13.15	19.60	21.00	18.20	16.00	15.25	15.00	15.00	15.00
Inedible tallow, Chicago (cts./lb.)	9.03	13.79	16.64	18.00	17.44	16.00	15.02	14.18	16.33	14.90
Import commodities										
Coffee, N.Y. spot ($/lb.)	2.01	1.09	1.21	1.19	1.11	1.15	1.13	1.17	1.31	1.46
Rubber, N.Y. spot (cts./lb.)	42.87	50.65	59.20	64.59	63.84	60.08	55.17	52.98	54.13	55.95
Cocoa beans, N.Y. ($/lb.)	.88	.87	.69	.86	.63	.54	.58	.64	.66	.64

Information contact: Mary Teymourian (202) 786-1820.

Table 28.—Indexes of Real Trade-Weighted Dollar Exchange Rates [1]

	1988 Mar	Apr	May	June	July	Aug	Sept P	Oct P	Nov P	Dec P	1989 Jan P	Feb P
	1980=100											
Total U.S. trade 2/	100.3	99.4	100.3	103.6	108.4	110.5	110.5	107.6	103.5	103.3	106.9	106.7
Agricultural trade												
U.S. markets	102.8	101.6	101.7	103.3	105.5	106.2	107.5	109.2	102.3	101.9	103.8	105.4
U.S. competitors	125.8	124.7	124.6	125.1	126.6	128.1	128.7	127.6	126.0	125.6	127.1	127.3
Wheat												
U.S. markets	114.6	112.9	113.0	113.3	115.5	115.8	119.4	130.6	116.5	116.6	119.2	125.9
U.S. competitors	121.0	120.0	119.3	119.2	119.7	120.7	119.7	116.6	114.2	112.4	112.4	111.2
Soybeans												
U.S. markets	97.4	96.5	97.0	99.5	103.4	104.8	104.7	102.1	98.5	98.3	101.1	100.7
U.S. competitors	188.4	187.1	188.5	190.4	186.3	185.9	177.9	175.6	178.4	176.5	174.4	172.5
Corn												
U.S. markets	90.7	89.3	89.5	91.9	93.5	93.9	94.4	91.7	88.6	88.0	89.1	88.4
U.S. competitors	163.9	163.6	164.8	169.6	170.7	171.6	164.8	159.3	155.0	153.0	153.3	150.7
Cotton												
U.S. markets	98.5	97.7	97.7	98.9	101.4	102.0	102.3	100.2	97.2	96.7	98.2	97.7
U.S. competitors	107.9	103.8	102.8	101.0	100.7	99.5	102.0	99.5	97.7	96.6	97.0	96.7

1/ Real indexes adjust nominal exchange rates for differences in rates of inflation, to avoid the distortion caused by high-inflation countries. A higher value means the dollar has appreciated. See the October 1988 issue of Agricultural Outlook for a discussion of the calculations and the weights used. 2/ Federal Reserve Board Index of trade-weighted value of the U.S. dollar against 10 major currencies. Weights are based on relative importance in world financial markets.
P = preliminary.

Information contact: Tim Baxter, David Stallings (202) 786-1706.

Table 29.—Trade Balance

	Fiscal year 1/ 1981	1982	1983	1984	1985	1986	1987	1988	1989 F	Dec 1988
	$ million									
Exports										
Agricultural	43,780	39,097	34,769	38,027	31,201	26,309	27,876	35,334	36,500	3,624
Nonagricultural	185,423	176,308	159,373	170,014	179,236	176,628	202,911	259,013	--	24,402
Total 2/	229,203	215,405	194,142	208,041	210,437	202,937	230,787	294,347	--	28,026
Imports										
Agricultural	17,218	15,485	16,373	18,916	19,740	20,875	20,650	21,011	21,000	1,670
Nonagricultural	237,469	233,349	230,527	297,736	313,722	342,855	367,374	409,141	--	36,642
Total 3/	254,687	248,834	246,900	316,652	333,462	363,730	388,024	430,152	--	38,312
Trade balance										
Agricultural	26,562	23,612	18,396	19,111	11,461	5,434	7,226	14,323	15,500	1,954
Nonagricultural	-52,046	-57,041	-71,154	-127,722	-134,486	-166,227	-164,463	-150,128	--	-12,240
Total	-25,484	-33,429	-52,758	-108,611	-123,025	-160,793	-157,237	-135,805	--	-10,286

1/ Fiscal years begin October 1 & end September 30. Fiscal year 1988 began Oct. 1, 1987 & ended Sept. 30, 1988.
2/ Domestic exports including Department of Defense shipments (F.A.S. value). 3/ Imports for consumption (customs value).
F = forecast. -- = not available.

Information contact: Stephen MacDonald (202) 786-1822.

Table 30.—U.S. Agricultural Exports & Imports

	Fiscal year*				Dec	Fiscal year*				Dec
	1986	1987	1988	1989 F	1988	1986	1987	1988	1989 F	1988
	1,000 units					$ million				
EXPORTS										
Animals, live (no.) 1/	570	275	1,082	--	138	344	331	452	--	57
Meats & preps., excl. poultry (mt)	451	548	631	2/600	61	1,012	1,300	1,797	--	177
Dairy products (mt)	480	445	388	--	33	431	491	536	500	52
Poultry meats (mt)	265	376	390	400	44	282	406	424	--	53
Fats, oils, & greases (mt)	1,355	1,220	1,362	3/1,400	135	477	417	545	--	53
Hides & skins incl. furskins	--	--	--	--	--	1,440	1,666	1,838	--	132
Cattle hides, whole (no.) 1/	25,596	24,333	23,282	--	1,961	1,131	1,254	1,457	--	107
Mink pelts (no.) 1/	2,697	2,760	2,455	--	182	65	103	88	--	6
Grains & feeds (mt)	74,358	90,211	108,905	--	9,566	9,472	9,059	12,581	4/16,300	1,377
Wheat (mt)	25,501	28,204	40,501	39,000	2,726	3,260	2,877	4,467	5/6,200	428
Wheat flour (mt)	1,094	1,305	1,046	1,200	170	203	207	171	--	24
Rice (mt)	2,382	2,454	2,173	2,400	310	648	551	731	700	87
Feed grains, incl. products (mt)	36,236	47,606	53,308	59,000	5,426	3,817	3,752	5,209	7,100	655
Feeds & fodders (mt)	8,392	10,113	11,233	6/11,000	874	1,286	1,455	1,719	--	153
Other grain products (mt)	1,015	755	908	--	79	332	285	361	--	37
Fruits, nuts, and preps. (mt)	2,003	2,146	2,409	--	201	1,766	2,050	2,368	--	188
Fruit juices incl. froz. (1,000 hectoliters) 1/	3,652	4,364	5,497	--	386	148	185	252	--	18
Vegetables & preps. (mt)	1,442	1,629	1,826	--	202	997	1,176	1,282	--	150
Tobacco, unmanufactured (mt)	224	224	229	200	21	1,318	1,203	1,296	1,300	132
Cotton, excl. linters (mt)	482	1,306	1,388	1,100	146	678	1,419	2,136	1,700	207
Seeds (mt)	269	305	286	--	49	367	371	415	400	67
Sugar, cane or beet (mt)	375	582	318	--	616	75	113	98	--	5
Oilseeds & products (mt)	27,583	29,725	29,471	--	2,558	6,271	6,308	7,700	6,900	789
Oilseeds (mt)	20,684	21,905	21,366	--	1,918	4,394	4,423	5,238	--	576
Soybeans (mt)	20,139	21,394	20,908	15,400	1,885	4,174	4,205	5,008	4,500	553
Protein meal (mt)	5,614	6,786	6,406	4,500	545	1,132	1,347	1,502	1,200	153
Vegetable oils (mt)	1,284	1,035	1,699	--	96	746	538	961	--	61
Essential oils (mt)	7	8	9	--	1	105	111	120	--	14
Other	568	565	668	--	69	1,126	1,273	1,495	--	153
Total	109,862	129,290	148,280	145,000	13,702	26,309	27,876	35,334	38,000	3,624
IMPORTS										
Animals, live (no.) 1/	1,885	1,994	2,238	--	198	637	610	729	600	69
Meats & preps., excl. poultry (mt)	1,139	1,282	1,280	--	74	2,248	2,797	2,788	--	164
Beef & veal (mt)	693	778	779	750	36	1,252	1,575	1,681	1,600	77
Pork (mt)	406	462	456	435	34	900	1,125	1,001	900	74
Dairy products (mt)	400	461	337	400	29	786	849	881	800	79
Poultry & products 1/	--	--	--	--	--	101	112	97	--	7
Fats, oils, & greases (mt)	22	21	20	--	1	17	18	19	--	2
Hides & skins, incl. furskins 1/	--	--	--	--	--	200	304	247	--	30
Wool, unmanufactured (mt)	53	2,233	703	--	4	160	201	292	--	25
Grains & feeds (mt)	2,311	2,336	3,050	3,100	214	668	727	868	900	77
Fruits, nuts, & preps., excl. juices (mt)	4,637	4,840	4,797	4,895	362	1,976	2,179	2,169	--	167
Bananas & plantains (mt)	3,042	3,106	3,030	3,050	234	740	817	820	800	65
Fruit juices (1,000 hectoliters) 1/	31,539	34,059	26,754	27,000	2,978	698	728	767	--	90
Vegetables & preps. (mt)	2,199	2,446	2,521	2,500	201	1,560	1,509	1,593	1,600	143
Tobacco, unmanufactured (mt)	208	225	217	210	5	606	634	611	600	14
Cotton, unmanufactured (mt)	41	38	36	--	1	14	7	9	--	7/
Seeds (mt)	89	133	143	140	10	111	156	153	200	15
Nursery stock & cut flowers 1/	--	--	--	--	--	353	369	419	--	33
Sugar, cane or beet (mt)	1,905	1,492	1,069	--	134	654	497	368	--	53
Oilseeds & products (mt)	1,508	1,572	1,772	1,750	176	639	579	838	900	90
Oilseeds (mt)	197	165	208	--	28	69	56	71	--	10
Protein meal (mt)	138	245	253	--	28	15	30	42	--	5
Vegetable oils (mt)	1,173	1,162	1,311	--	121	555	493	725	--	75
Beverages excl. fruit juices (1,000 hectoliters) 1/	15,488	15,547	15,583	--	999	1,848	1,923	2,008	--	138
Coffee, tea, cocoa, spices (mt)	1,940	1,915	1,842	--	137	6,099	4,868	4,274	--	300
Coffee, incl. products (mt)	1,223	1,206	1,050	1,000	65	4,400	3,233	2,600	2,900	171
Cocoa beans & products (mt)	507	503	562	530	53	1,189	1,087	1,164	1,000	88
Rubber & allied gums (mt)	801	824	846	840	75	615	714	949	900	93
Other	--	--	--	--	--	885	868	931	--	82
Total	--	--	--	--	--	20,875	20,650	21,011	21,000	1,670

*Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1988 began Oct. 1, 1987 & ended Sept. 30, 1988. 1/ Not included in total volume. 2/ Forecasts for footnoted items 2/-6/ are based on slightly different groups of commodities. Fiscal 1988 exports of categories used in the 1989 forecasts were 2/ 561,000 m. tons. 3/ 1.347 million dollars 4/ 12,743 million. 5/ 4,638 million, i.e. includes flour. 6/ 11.095 million m. tons. 7/ Less than $500. F = forecast. -- = not available.

Information contact: Stephen MacDonald (202) 786-1822.

Table 31.—U.S. Agricultural Exports by Region

Region & country	Fiscal year* 1986	1987	1988	1989 F	Dec 1988	Change from year* earlier 1986	1987	1988	1989 F	Dec 1988
	$ million					Percent				
Western Europe	6,848	7,219	8,029	7,800	835	-5	5	11	-2	5
European Community (EC-12)	6,432	6,787	7,513	7,300	774	-4	5	11	-3	4
Belgium-Luxembourg	361	423	429	--	42	-23	17	1	--	-9
France	431	495	565	--	52	9	15	14	--	-7
Germany, Fed. Rep.	1,001	1,266	1,306	--	124	11	26	3	--	2
Italy	693	733	713	--	65	2	6	-3	--	-26
Netherlands	2,042	1,954	2,087	--	216	6	-4	7	--	-13
United Kingdom	628	666	819	--	78	0	6	23	--	13
Portugal	308	271	340	--	32	-39	-12	25	--	28
Spain, incl. Canary Islands	723	658	848	--	139	-13	-9	29	--	132
Other Western Europe	415	432	516	500	61	-19	4	20	0	30
Switzerland	128	145	191	--	11	-45	13	32	--	-39
Eastern Europe	447	453	559	500	33	-16	1	23	-11	-25
German Dem. Rep.	52	66	67	--	9	-36	27	0	--	800
Poland	42	63	167	--	4	-66	50	165	--	-86
Yugoslavia	134	131	104	--	2	-2	-2	-21	--	-50
Romania	112	115	93	--	7	27	3	-19	--	250
USSR	1,105	659	1,934	2,900	219	-56	-40	193	50	5
Asia	10,494	11,990	15,928	17,700	1,626	-12	14	33	11	28
West Asia (Mideast)	1,243	1,664	1,903	1,900	217	-14	34	14	0	32
Turkey	111	117	120	--	10	-13	5	3	--	150
Iraq	335	528	735	900	69	-10	58	39	29	10
Israel	255	244	334	--	44	-15	-4	37	--	5
Saudi Arabia	335	489	464	400	65	-12	46	-5	-13	48
South Asia	517	345	805	--	115	-14	-33	133	--	145
Bangladesh	94	111	107	--	5	-54	18	-3	--	25
India	90	93	354	--	34	-30	3	281	--	127
Pakistan	285	98	276	400	65	25	-66	181	33	141
China	83	235	613	1,200	148	-65	183	161	96	825
Japan	5,139	5,554	7,274	8,200	685	-9	8	31	13	17
Southeast Asia	724	708	1,015	--	80	-14	-2	43	--	-6
Indonesia	172	152	238	--	22	-16	-12	56	--	29
Philippines	269	259	345	300	21	-6	-4	33	0	-32
Other East Asia	2,788	3,485	4,318	4,600	381	-11	25	24	7	1
Taiwan	1,109	1,354	1,577	1,600	144	-17	22	16	0	12
Korea, Rep.	1,277	1,693	2,250	2,500	191	-9	33	33	11	7
Hong Kong	400	436	488	500	46	1	9	12	0	15
Africa	2,134	1,784	2,272	2,400	221	-16	-16	27	6	55
North Africa	1,401	1,279	1,659	1,800	185	16	-9	30	8	57
Morocco	159	196	193	--	28	2	23	-2	--	22
Algeria	329	244	537	700	79	50	-26	120	30	76
Egypt	875	761	786	900	75	14	-13	3	15	70
Sub-Sahara	733	505	613	600	36	-44	-31	21	0	38
Nigeria	158	67	44	--	5	-57	-58	-35	--	25
Rep. S. Africa	70	49	85	--	3	-63	-30	74	--	-40
Latin America & Caribbean	3,598	3,765	4,401	4,600	481	-21	5	17	2	44
Brazil	445	418	176	200	6	-20	-6	-58	0	-86
Caribbean Islands	752	829	867	--	99	-2	10	5	--	41
Central America	334	377	413	--	32	-7	13	10	--	23
Colombia	137	115	178	--	6	-42	-16	55	--	-67
Mexico	1,114	1,215	1,726	2,000	228	-29	9	42	16	212
Peru	108	140	174	--	10	2	30	24	--	-50
Venezuela	493	459	597	500	74	-32	-7	30	-16	28
Canada	1,466	1,776	1,973	2,000	186	-15	21	11	0	12
Oceania	216	230	238	200	23	6	6	3	0	10
Total	26,309	27,876	35,334	36,500	3,624	-16	6	27	3	21
Developed countries	13,954	15,031	17,883	18,400	1,771	-8	8	19	3	10
Less developed countries	10,719	11,498	14,346	15,000	1,453	-15	7	25	5	31
Centrally planned countries	1,636	1,347	3,106	4,600	401	-50	-18	131	48	50

*Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1988 began Oct. 1, 1987 & ended Sept. 30, 1988. F = forecast.
-- = not available.
Note: Adjusted for transshipments through Canada.

Information contact: Stephen MacDonald (202) 786-1822.

Table 32.—Farm Income Statistics

	Calendar year										
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988 F	1989 F
	$ billion										
1. Farm receipts	133.8	142.0	144.1	147.1	141.1	146.8	149.1	140.2	143.7	157	153 to 159
Crops (incl. net CCC loans)	62.3	71.7	72.5	72.3	67.1	69.5	74.2	63.6	61.9	71	69 to 72
Livestock	69.2	68.0	69.2	70.3	69.4	73.0	69.8	71.5	76.2	80	79 to 82
Farm related 1/	2.2	2.3	2.5	4.5	4.5	4.4	5.0	5.1	5.6	6	5 to 7
2. Direct Government payments	1.4	1.3	1.9	3.5	9.3	8.4	7.7	11.8	16.8	14	10 to 12
Cash payments	1.4	1.3	1.9	3.5	4.1	4.0	7.6	8.1	6.7	8	7 to 11
Value of PIK commodities	0.0	0.0	0.0	0.0	5.2	4.5	0.1	3.7	10.1	7	1 to 2
3. Total gross farm income (4+5+6) 2/	150.7	149.3	166.4	163.5	153.1	174.9	166.1	159.8	169.8	172	182 to 187
4. Gross cash income (1+2)	135.1	143.3	146.0	150.6	150.4	155.2	156.7	152.0	160.5	170	165 to 169
5. Nonmoney income 3/	10.6	12.3	13.8	14.3	13.5	13.4	11.8	10.6	10.0	10	8 to 10
6. Value of inventory change	5.0	-6.3	6.5	-1.4	-10.9	6.3	-2.4	-2.8	-.6	-8	8 to 10
7. Cash expenses 4/	101.7	109.1	113.2	112.8	113.5	116.6	110.2	100.6	103.3	113	115 to 119
8. Total expenses	123.3	133.1	139.4	140.0	140.4	142.7	134.0	122.3	123.5	132	136 to 140
9. Net cash income (4-7)	33.4	34.2	32.8	37.8	36.9	38.7	46.6	51.4	57.1	58	48 to 52
10. Net farm income (3-8)	27.4	16.1	26.9	23.5	12.7	32.3	32.2	37.4	46.3	40	44 to 48
Deflated (1982$)	34.9	18.8	28.6	23.5	12.2	30.0	28.9	32.8	39.5	33	36 to 40
11. Off-farm income	33.8	34.7	35.8	36.4	37.0	38.9	42.6	44.6	46.8	49	48 to 51
12. Loan changes 5/: Real estate	13.0	9.9	9.1	3.8	2.3	-1.1	-6.0	-9.2	-7.7	-4	0 to 3
13. 5/: Non-real estate	11.2	5.3	6.5	3.4	0.9	-0.8	-9.6	-10.7	-4.9	1	2 to 3
14. Rental income plus monetary change	6.3	6.1	6.4	6.3	5.3	8.9	8.8	7.8	6.8	9	7 to 9
15. Capital expenditures 5/	20.1	18.0	16.8	13.3	12.7	12.5	9.6	8.6	9.8	11	9 to 12
16. Net cash flow (9+12+13+14-15)	43.8	37.6	37.8	38.1	32.7	33.2	30.2	30.7	41.5	53	50 to 54

1/ Income from machine hire, custom work, sales of forest products, & other miscellaneous cash sources. 2/ Numbers in parentheses indicate the combination of items required to calculate a given item. 3/ Value of home consumption of self-produced food & imputed gross rental value of farm dwellings. 4/ Excludes capital consumption, perquisites to hired labor, & farm household expenses. 5/ Excludes farm households. Totals may not add because of rounding. F = forecast.

Information contact: Andy Bernat (202) 786-1808.

Table 33.—Balance Sheet of the U.S. Farming Sector

	Calendar year 1/										
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988 F	1989 F
	$ billion										
Assets											
Real estate	706.2	782.9	784.7	748.8	739.6	639.6	558.6	510.1	522.6	553	560 to 570
Non-real estate	201.6	213.2	212.0	212.4	205.7	208.9	190.4	181.5	186.3	190	187 to 201
Livestock & poultry	61.4	60.6	53.5	53.0	49.7	49.6	46.3	47.6	57.6	61	60 to 64
Machinery & motor vehicles	85.8	93.1	101.4	102.0	100.8	96.9	87.6	80.3	73.9	74	74 to 78
Crops stored 2/	29.2	33.0	29.1	27.9	23.9	29.6	23.5	19.1	20.5	20	16 to 20
Financial assets	25.3	26.5	28.0	29.5	31.3	32.8	33.0	34.4	34.3	35	35 to 37
Total farm assets	907.8	996.1	996.7	961.2	945.3	848.5	749.0	691.6	708.9	743	752 to 762
Liabilities											
Real estate 3/	79.7	89.6	98.7	102.5	104.8	103.7	97.7	88.5	80.8	77	76 to 80
Non-real estate 4/	71.8	77.1	83.6	87.0	87.9	87.1	77.5	66.8	61.9	63	63 to 67
Total farm liabil.	151.6	166.8	182.3	189.5	192.7	190.8	175.2	155.3	142.7	139	139 to 147
Total farm equity	756.2	829.3	814.4	771.7	752.6	657.7	573.8	536.3	566.3	604	608 to 618
	Percent										
Selected ratios											
Debt-to-assets	16.7	16.7	18.3	19.7	20.4	22.5	23.4	22.5	20.1	18.7	18 to 20
Debt-to-equity	20.0	20.1	22.4	24.6	25.6	29.0	30.5	29.0	25.2	23.1	22 to 24
Debt-to-net cash income	454	488	556	497	523	493	376	302	250	241	280 to 290

1/ As of Dec. 31. 2/ Non-CCC crops held on farms plus value above loan rates for crops held under CCC. 3/ Excludes debt on operator dwellings, but includes CCC storage and drying facilities loans. 4/ Excludes debt for nonfarm purposes. F = forecast.

Information contacts: Ken Erickson or Jim Ryan (202) 786-1798.

Table 34.—Cash Receipts from Farm Marketings, by State

Region & State	Livestock & products 1987	Livestock & products 1988	Livestock & products Nov 1988	Livestock & products Dec 1988	Crops 1/ 1987	Crops 1/ 1988	Crops 1/ Nov 1988	Crops 1/ Dec 1988	Total 1/ 1987	Total 1/ 1988	Total 1/ Nov 1988	Total 1/ Dec 1988
	$ million 2/											
North Atlantic												
Maine	243	247	25	21	170	166	16	20	413	413	41	41
New Hampshire	66	66	5	5	38	43	5	4	104	109	10	10
Vermont	377	360	31	32	35	41	9	5	412	401	39	38
Massachusetts	124	124	10	10	268	282	47	30	393	406	58	40
Rhode Island	12	12	1	1	63	63	4	9	75	75	5	10
Connecticut	196	192	16	18	170	178	13	12	366	370	30	30
New York	1,800	1,754	160	166	726	807	69	72	2,527	2,561	229	238
New Jersey	140	140	12	12	423	423	38	27	563	563	50	39
Pennsylvania	2,319	2,358	203	219	905	955	87	83	3,224	3,313	290	302
North Central												
Ohio	1,614	1,553	136	133	1,808	2,023	238	156	3,422	3,576	374	290
Indiana	1,856	1,713	151	147	2,016	2,377	152	130	3,872	4,090	303	277
Illinois	2,262	2,131	186	187	3,913	4,219	339	226	6,174	6,351	525	412
Michigan	1,285	1,256	109	116	1,219	1,408	169	107	2,504	2,664	279	222
Wisconsin	4,222	4,148	365	375	795	837	99	66	5,017	4,985	465	442
Minnesota	3,645	3,643	327	300	2,165	2,848	308	192	5,809	6,491	635	492
Iowa	5,270	5,221	442	451	3,510	4,079	387	338	8,780	9,300	829	789
Missouri	2,173	2,211	236	166	1,517	1,832	164	140	3,691	4,042	399	307
North Dakota	760	809	85	74	1,548	1,625	204	153	2,308	2,434	290	226
South Dakota	1,910	1,845	212	135	813	942	80	59	2,723	2,787	292	194
Nebraska	4,848	5,292	486	374	1,975	2,632	335	282	6,823	7,923	820	656
Kansas	3,914	4,333	364	311	1,807	2,338	228	277	5,722	6,671	593	589
Southern												
Delaware	370	455	38	41	114	147	21	9	485	602	58	50
Maryland	734	806	66	77	394	467	64	32	1,128	1,273	130	109
Virginia	1,244	1,378	120	99	448	576	86	49	1,692	1,954	206	148
West Virginia	169	170	16	12	52	63	8	6	221	234	24	18
North Carolina	2,081	2,111	203	176	1,634	1,953	229	118	3,715	4,064	432	294
South Carolina	461	440	40	34	470	587	76	52	931	1,027	116	86
Georgia	1,826	1,973	153	158	1,261	1,487	168	96	3,087	3,461	321	254
Florida	1,102	1,154	93	92	4,125	4,615	250	415	5,227	5,769	343	508
Kentucky	1,506	1,536	254	84	913	991	274	129	2,419	2,527	528	213
Tennessee	1,107	1,233	100	89	826	980	194	125	1,933	2,213	294	214
Alabama	1,560	1,813	129	119	588	695	69	60	2,148	2,508	198	179
Mississippi	1,040	1,153	88	89	939	1,198	201	285	1,979	2,352	289	374
Arkansas	2,116	2,256	184	175	1,027	1,722	298	210	3,143	3,978	483	385
Louisiana	521	561	40	40	899	1,292	251	255	1,420	1,853	291	294
Oklahoma	2,052	2,392	164	121	700	985	124	126	2,752	3,377	288	246
Texas	6,059	6,199	430	404	3,027	3,921	370	520	9,086	10,120	800	924
Western												
Montana	760	790	103	76	587	574	62	58	1,347	1,363	165	134
Idaho	926	1,072	90	89	1,120	1,270	197	144	2,047	2,343	287	233
Wyoming	528	536	60	38	114	155	41	26	642	691	101	63
Colorado	2,321	2,618	238	215	870	1,026	160	140	3,191	3,643	398	355
New Mexico	817	858	141	71	331	363	46	36	1,147	1,221	187	107
Arizona	774	788	40	35	1,007	1,180	120	174	1,781	1,969	160	210
Utah	462	456	37	37	134	149	14	16	596	605	51	53
Nevada	167	167	11	11	76	75	8	7	243	243	18	19
Washington	982	1,061	86	93	1,860	2,125	197	177	2,841	3,186	283	270
Oregon	655	666	65	63	1,206	1,379	137	104	1,861	2,045	202	167
California	4,741	5,050	389	399	10,781	11,551	1,548	1,164	15,522	16,601	1,937	1,563
Alaska	11	11	1	1	19	19	2	2	29	30	3	3
Hawaii	88	88	7	7	471	497	42	42	559	585	49	49
United States	76,218	79,198	6,949	6,201	61,876	72,161	8,247	6,965	138,094	151,359	15,197	13,166

1/ Sales of farm products include receipts from commodities placed under CCC loans minus value of redemptions during the period. 2/ Estimates as of end of current month. Totals may not add because of rounding.

Information contact: Roger Strickland (202) 786-1804.

Table 35.—Cash Receipts from Farming

	Annual 1983	1984	1985	1986	1987	1988	1987 Dec	1988 Aug	Sept	Oct	Nov	Dec
	$ million											
Farm marketings & CCC loans*	136,567	142,436	144,015	135,102	138,094	151,359	12,469	12,329	14,695	16,576	15,197	13,166
Livestock & products	69,438	72,966	69,842	71,548	76,218	79,198	5,936	6,712	7,292	7,228	6,949	6,201
Meat animals	38,893	40,832	38,589	39,122	44,716	47,100	3,404	3,910	4,435	4,366	3,958	3,351
Dairy products	18,763	17,944	18,063	17,753	17,829	17,482	1,522	1,434	1,435	1,532	1,531	1,642
Poultry & eggs	9,981	12,223	11,211	12,678	11,487	12,384	872	1,209	1,222	1,190	1,160	1,070
Other	1,801	1,967	1,979	1,994	2,187	2,232	137	160	200	140	301	138
Crops	67,129	69,469	74,173	63,554	61,876	72,161	6,533	5,616	7,403	9,348	8,247	6,965
Food grains	9,713	9,740	8,993	5,631	5,411	7,645	425	828	710	760	520	570
Feed crops	15,535	15,668	22,520	16,982	13,061	15,291	1,325	1,470	1,426	1,538	1,599	1,335
Cotton (lint & seed)	3,705	3,674	3,687	3,551	4,027	4,964	923	146	369	606	927	1,359
Tobacco	2,752	2,813	2,722	1,918	1,827	2,037	384	434	491	319	368	145
Oil-bearing crops	13,546	13,641	12,474	10,592	10,800	13,822	1,122	579	1,643	3,293	1,700	963
Vegetables & melons	8,459	9,138	8,558	8,630	9,223	9,555	408	925	964	922	544	502
Fruits & tree nuts	6,056	6,737	6,843	7,288	7,869	8,904	851	684	961	1,067	1,157	943
Other	7,365	8,060	8,378	8,962	9,658	9,943	1,094	550	839	843	1,433	1,147
Government payments	9,295	8,430	7,704	11,813	16,747	14,480	1,417	49	419	2,658	513	468
Total	145,862	150,866	151,719	146,915	154,841	165,839	13,886	12,378	15,114	19,234	15,710	13,634

*Receipts from loans represent value of commodities placed under CCC loans minus value of redemptions during the month.

Information contact: Roger Strickland (202) 786-1804.

Table 36.—Farm Production Expenses

	Calendar year 1980	1981	1982	1983	1984	1985	1986	1987	1988 F	1989 F
	$ million									
Feed	20,971	20,855	18,592	21,725	19,852	18,015	16,179	16,093	20,600	20,000 to 24,000
Livestock	10,670	8,999	9,684	8,814	9,498	8,958	9,744	12,014	13,200	11,000 to 14,000
Seed	3,220	3,428	3,172	2,993	3,448	3,350	2,984	3,009	3,400	3,000 to 4,000
Farm-origin inputs	34,861	33,282	31,448	33,532	32,798	30,323	28,907	31,116	37,300	36,000 to 40,000
Fertilizer	9,491	9,409	8,018	7,067	7,429	7,259	5,787	5,392	5,900	6,000 to 8,000
Fuels & oils	7,879	8,570	7,888	7,503	7,143	6,584	4,790	4,442	4,600	4,000 to 6,000
Electricity	1,526	1,747	2,041	2,146	2,166	2,150	1,942	2,393	2,500	2,000 to 3,000
Pesticides	3,539	4,201	4,282	4,154	4,767	4,994	4,485	4,588	4,600	5,000 to 6,000
Manufactured inputs	22,435	23,927	22,229	20,870	21,505	20,987	17,004	16,815	17,600	18,000 to 22,000
Short-term interest	8,717	10,722	11,349	10,615	10,396	8,821	7,795	7,305	7,800	7,000 to 9,000
Real estate interest 1/	7,544	9,142	10,481	10,815	10,733	9,878	9,131	8,202	8,300	7,000 to 9,000
Total interest charges	16,261	19,864	21,830	21,430	21,129	18,699	16,926	15,508	16,000	15,000 to 17,000
Repair & maintenance 1/ 2/	7,075	7,021	6,428	6,529	6,416	6,370	6,426	6,546	7,000	7,000 to 8,000
Contract & hired labor	9,293	8,931	10,075	9,725	9,729	9,799	9,879	10,747	11,000	11,000 to 13,000
Machine hire & custom work	1,823	1,984	2,025	1,896	2,170	2,184	1,810	1,956	2,100	2,000 to 3,000
Marketing, storage, & transportation	3,070	3,523	4,301	3,904	4,012	4,127	3,652	3,823	3,400	4,000 to 5,000
Misc. operating expenses 1/	6,881	6,909	7,262	9,089	9,106	8,232	7,993	8,311	7,200	6,000 to 8,000
Other operating expenses	28,142	28,368	30,089	31,143	31,433	30,712	29,760	31,383	32,100	32,000 to 36,000
Capital consumption 1/	21,474	23,573	24,287	23,873	23,105	20,847	18,916	17,348	16,800	17,000 to 18,000
Taxes 1/	3,891	4,246	4,036	4,469	4,059	4,231	4,125	4,345	4,400	4,000 to 5,000
Net rent to nonoperator landlord	6,075	6,184	6,059	5,060	8,640	8,158	6,698	6,987	7,800	7,000 to 8,000
Other overhead expenses	31,440	34,003	34,381	33,402	35,805	33,236	29,739	28,680	29,100	28,000 to 31,000
Total production expenses	133,139	139,444	139,980	140,377	142,669	133,957	122,335	123,502	132,100	136,000 to 140,000

1/ Includes operator dwellings. 2/ Beginning in 1982, miscellaneous operating expenses include other livestock purchases & dairy assessments. Totals may not add because of rounding. F = forecast.

Information contacts: Chris McGath (202) 786-1804, Andy Bernat (202) 786-1808.

Table 37.—CCC Net Outlays by Commodity & Function

	Fiscal year										
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 E	1990 E
	$ million										
COMMODITY/PROGRAM											
Feed grains	1,286	-533	5,397	6,815	-758	5,211	12,211	13,967	9,053	3,042	5,562
Wheat	879	1,543	2,238	3,419	2,536	4,691	3,440	2,836	678	279	1,052
Rice	-76	24	164	664	333	990	947	906	128	999	959
Upland cotton	64	336	1,190	1,363	244	1,553	2,142	1,786	666	2,538	994
Tobacco	-88	-51	103	880	346	455	253	-346	-453	-569	-280
Dairy	1,011	1,894	2,182	2,528	1,502	2,085	2,337	1,166	1,295	662	893
Soybeans	116	87	169	288	-585	711	1,597	-476	-1,676	-32	116
Peanuts	28	28	12	-6	1	12	32	8	7	5	4
Sugar	-405	-121	-5	49	10	184	214	-65	-246	0	0
Honey	9	8	27	48	90	81	89	73	100	60	55
Wool	35	42	54	94	132	109	123	152	1/ 5	89	98
Operating expense	157	159	294	328	362	346	457	535	614	583	635
Interest expenditure	518	220	-13	3,525	1,064	1,435	1,411	1,219	395	283	284
Export programs	-669	-940	65	398	743	134	102	276	200	116	107
Other	-113	1,340	-225	-1,542	1,295	-314	486	371	1,695	5,788	1,100
Total	2,752	4,036	11,652	18,851	7,315	17,683	25,841	22,408	12,461	13,843	11,579
FUNCTION											
Price-support loans (net)	-66	174	7,015	8,438	-27	6,272	13,628	12,199	4,579	-153	1,011
Direct payments											
Deficiency	79	0	1,185	2,780	612	6,302	6,166	4,833	3,971	5,889	7,006
Diversion	56	0	0	705	1,504	1,525	64	382	8	0	0
Dairy termination	0	0	0	0	0	0	489	587	260	200	189
Other	25	0	0	0	0	0	27	60	0	83	0
Disaster	258	1,030	306	115	1	0	0	0	6	0	0
Total direct payments	418	1,030	1,491	3,600	2,117	7,827	6,746	5,862	4,245	6,172	7,195
1988 crop disaster	0	0	0	0	0	0	0	0	0	3,613	0
Emergency livestock/ forage assistance	23	329	16	0	0	0	0	0	31	902	8
Purchases (net)	1,681	1,602	2,031	2,540	1,470	1,331	1,670	-479	-1,131	-10	519
Producer storage payments	254	32	679	964	268	329	485	832	658	319	174
Processing, storage, & transportation	259	323	355	665	639	657	1,013	1,659	1,113	654	443
Operating expense	157	159	294	328	362	346	457	535	614	583	635
Interest expenditure	518	220	-13	3,525	1,064	1,435	1,411	1,219	395	283	284
Export programs	-669	-940	65	398	743	134	102	276	200	116	107
Other	177	1,107	-281	-1,607	679	-648	329	305	1,757	1,364	1,203
Total	2,752	4,036	11,652	18,851	7,315	17,683	25,841	22,408	12,461	13,843	11,579

1/ Fiscal year 1988 wool & mohair program outlays were $130,635,000 but include a one-time advance appropriation of $126,108,000, which was recorded as a wool program receipt by treasury. E = estimated in the fiscal 1990 President's Budget. Minus (-) indicates a net receipt (excess of repayments or other receipts over gross outlays of funds).

Information contact: Richard Pazdalski (202) 447-5148.

Transportation

Table 38.—Rail Rates; Grain & Fruit/Vegetable Shipments

	Annual			1988						1989
	1986	1987	1988	Jan	Aug	Sept	Oct	Nov	Dec	Jan
Rail freight rate index 1/ (Dec. 1984=100)										
All products	100.7	100.1	104.8	103.2	105.4	105.4	105.4 P	105.3 P	105.4 P	105.9 P
Farm products	99.6	99.3	105.5	101.9	108.4	108.7	107.5 P	107.8 P	107.8 P	109.6 P
Grain	98.9	98.7	105.3	101.2	109.3	109.3	107.8 P	108.1 P	108.2 P	109.8 P
Food products	99.9	98.6	103.2	101.5	103.7	103.7	103.7 P	103.7 P	103.6 P	103.7 P
Grain shipments										
Rail carloadings (1,000 cars) 2/	24.4	29.0	30.6	32.2	27.1 P	28.9 P	30.7 P	27.1 P	27.4 P	30.2 P
Fresh fruit & vegetable shipments										
Piggy back (1,000 cwt) 3/ 4/	629	588	532	435	509	489	404	409	419	374
Rail (1,000 cwt) 3/ 4/	563	660	604	781	154	566	585	691	711	701
Truck (1,000 cwt) 3/ 4/	9,031	9,137	9,520	8,898	8,649	8,369	8,711	9,097	9,341	8,896
Cost of operating trucks hauling produce 5/										
Owner operator (cts./mile)	113.1	116.3	118.7	118.1	118.6	118.5	118.6	119.6	120.4	121.3
Fleet operation (cts./mile)	113.6	116.5	118.4	118.0	118.2	118.6	118.3	119.1	120.1	121.0

1/ Department of Labor, Bureau of Labor Statistics. 2/ Weekly average; from Association of American Railroads. 3/ Weekly average; from Agricultural Marketing Service, USDA. 4/ Preliminary data for 1988 & 1989. 5/ Office of Transportation, USDA. P = preliminary.

Information contact: T.Q. Hutchinson (202) 786-1840.

Indicators of Farm Productivity

Table 39.—Indexes of Farm Production Input Use & Productivity

(See the March 1989 issue.)

Information contact: Jim Hauver (202) 786-1459.

Food Supply and Use

Table 40.—Per Capita Consumption of Major Food Commodities

(See the March 1989 issue.)

Information contact: Judy Putnam (202) 786-1870.

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